The politics of environmental narratives

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THE POLITICS OF ENVIRONMENTAL NARRATIVES

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The Politics of Environmental Narratives

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INTRODUCTION
THE COMPLEXITY OF ENVIRONMENTAL POLITICS

As long as communities of people have existed, there have been different ideas about how best to deal with their environment and their natural resources. Just to take an example which is far removed from our society in both space and time, Tikopia is a small Pacific island the story of which has been made famous by the anthropologist Raymond Firth - author of *We The Tikopia* (Firth, 1936), one of the most influential study on Oceanian societies - and, lately, by Jared Diamond. In his book *Collapse* (Diamond, 2005), about past and present societies' struggles with their social and natural environments, Diamond decided to classify Tikopia as the success story of a little population which, through various ingenious and - according to contemporary liberal standards - not always humane methods, such as risky sea voyaging, has managed to sustainably inhabit the island for millennia. Around 1600, the Tikopians decided to kill all the pigs on the island and rely instead on fishes and other small animals for their protein consumption. Pigs were part and parcel of the Tikopian identity and were considered a luxury food introduced some 400 years earlier by Polynesian people coming from Fiji, Samoa, and Tonga. However, their farming and unruly behavior were taking a heavy toll on the vegetable gardens of the Tikopians. It is easy to imagine that the decision to kill all the pigs had been tough and that the Tikopian population, one of the most democratic among the Pacific societies according to Diamond, discussed at length the merits and demerits of the controversial "policy." I am obviously speculating, but we can imagine that some Tikopians must have argued that pig farming was too important for their society to altogether do away with, and was well worth some sacrifices. Other must have argued that pigs seriously harm the resources upon which they and their children depended, implying that their survival as individuals was more important than identity. And, yet other Tikopians might have suggested that a limited number of pigs be collectively maintained and their consumption be awarded through a lottery system in a traditional yearly festival; in this way, their identity as a pig farming population could have been preserved but the damaging consequences for the environment would have been minimized as much as possible. Perhaps the concept of a lottery as a mechanism to distribute justice is as anachronistic as a wristwatch in period dramas, but the point is that such a momentous decision could not have possibly been taken lightheartedly and without there being multiple competing ideas on how to ensure the survival of the population in such a fragile environment.

Today societies face similar challenges, but the contexts in which difficult choices need to be taken are far more complex. Researchers coming from disciplines as disparate as economics, philosophy, political science, geography, urban planning, zoology, anthropology, and many others usually speak of *coupled human and natural systems* to refer to the degree of complexity human beings now face in their relationship with the environment (Liu *et al*., 2007). This means that environmental problems are usually found at the crossroads between the complexity of ecosystems, the components and workings of which have evolved into an integrated whole over millions of years and which researchers know only very imperfectly, and the complexity of human social systems. The latter sort of complexity is perhaps less arcane as, on a very small scale, is what everyone who has gone to at least one condominium meeting has experienced at first hand: given a problem, there are often as many different ideas, different priorities, different approaches, different institutional avenues to try to solve it as there are participants. This double order of complexity makes environmental problems extremely difficult to solve, to the point that they often crystallize into so-called wicked problems (Rittel and Webber, 1973; Campbell, 2003). Global climate change is one of the preferred examples in the literature on wicked problems (Grundmann, 2016). In the philosophical literature, scholars sometimes follow Stephen Gardiner and use the expression "perfect moral storm" to refer to a somewhat similar concept (Gardiner, 2006).

Environmental problems of this magnitude of complexity lend themselves naturally (meaning that it is a default approach in the philosophical community, even though, strictly speaking, there is nothing natural about it) to be analyzed through the lens of global or international justice. The environment does not stop at the border; hence almost every intervention upon it has cross-border consequences, and when it raises issues of justice, it *ipso facto* also raises issues of international or global justice. As a matter of fact, there are people who proposed to stop the environment at the borders by instituting political entities called bioregions (Sale, 1985), but such proposals are clearly unattainable for reasons which need not be rehearsed here (I will say a bit about this in Chapter 5). Furthermore, there is also an implicit bias in how philosophy looks at environmental issues. Much of the early research in environmental ethics focused on the human place within the natural world (White Jr., 1967), on human impacts on the environment (Carson, 1962; Ehrlich 1968; Meadows *et al*., 1972), and on the unit of moral consideration - humans, entities capable of suffering, living things, ecosystems, or the whole planet - our ethical theories should be based upon (e.g. Naess, 1973; Rolston III, 1988; Singer, 1975). Then, in the 1980s, philosophers started to inquire into the distributive issues of managing the environment, but they approached the topic mainly by piggybacking on the international debates on how to operationalize the notion of sustainable development, which, in the formulation provided by the World Commission on Environment and Development, famously reads as follows:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987).

As a consequence of these two fundamental assumptions - the environment crosses political boundaries, and employing a global distributive focus in approaching environmental problems -, many environmental conflicts[1] are often understood through the prism of global or international justice. However, in a sense, many of them are not, or not primarily, *about* global or international justice. Just to be clear, some environmental problems, and the conflict they raise, are truly about global or international justice: *global* climate change is a case in point. The political conflict owes its existence to a disagreement among the views of different international actors, and deals with rights and duties which distant people and states owe to each other. But other environmental problems, and the related conflicts, are not: what shall a specific community do with a bunch of natural resources? We can imagine that some might argue in favor of putting the resources to their most economically rational use, others might want to preserve them, others might want to exploit them for reasons which have nothing to do with economic efficiency. This conflict of views does not owe its existence to diverging opinions concerning what states or human beings scattered around the globe owe to each other. We could adapt this debate to a more global frame by noting that how natural resources get used has cross-border repercussions, and therefore certain proposals are more warranted than others *from a global justice point of view*. But this move would not be particularly helpful for understanding why there is a conflict about the use of those natural resources in the first place, what is at stake, and what should be done to try to solve it.

This presumption towards utilizing a global lens to look at environmental problems often carries another bias: that of adopting a macro approach to study and analyze environmental conflicts. A macro approach prompts a researcher to provide a vertical solution to a given problem: either *from principles to specific cases* or *from intuitions about specific cases to principles*. *From principles to specific cases* means choosing a normative model, applying it to the particular issue at hand, and seeing whether a particular policy or set of policies are justified or not, and if not, whether they can be made justifiable by means of additional measures and, if so, what these measures are. The weight of this argumentative endeavor then falls back on the initial normative model employed and the reason for its choice. In this case the researcher has to either go back and justify the employment of that particular model and the model itself; if this has already been done she can simply refer back to that previous work; otherwise she will need to do so. Or, she could put between brackets the justification of the normative model and present her research as an outcome conditioned on the previous acceptance of that very - perhaps contested - model; e.g. within a welfarist normative model, policy

[1] "Conflict" is a loaded term which can mean different things to different people, but in this context I will employ a rather uncontroversial definition of it: there is a conflict when there are competing ideas of what is appropriate to do with a bunch of natural resources.

x would be justified because it does y. In this latter case, the answer to the question whether certain policies are justified or not will likely resonate particularly among those who have already made a prior commitment to that specific normative model. *From intuitions about specific cases to principles* means that the researcher has strong intuitions on what is right, then she goes on to find and adapt a normative model which could explain her intuitions. The normative model could then be justified because it fits well with the researcher intuitions, and possibly ours - those of the readers - as well. Alternatively, it can be justified independently of those intuitions, while at the same time accommodating them; this process of crafting a justification by balancing independently vindicated normative principles with moral intuitions goes by the name of reflective equilibrium. Both these strategies are legitimate ways to advance our knowledge and do research. However, given a certain problem, these macro approaches tell us why, after all, there should not be any conflict at all, but not *why* there is one.

In this book, I try to understand what makes certain environmental conflicts complex and resistant to resolution. In order to do so, I leave behind both the global lens and the macro approach usually adopted in these cases in the environmental philosophy scholarship, adopting instead what I call a *meso-level approach* which departs from a selected set of common competing positions usually found in environmental politics - both at the global and the local level - and then proceed to reconstruct the normative theories behind such positions. In particular, I will use three popular environmental narratives as a way of parsing environmental politics - they are *ecological modernization*, *civic environmentalism*, and *radical environmentalism* - usually associated respectively with a pro-market approach, a democratic and participatory approach, and an anti-*status quo* approach (i.e. anti-economic growth and anti-commodification) to environmental problem-solving. Then I will employ two sets of categories, or matrices, to understand why these competing normative theories make environmental conflicts complex and resistant to resolution.

The first matrix considers the normative presuppositions informing the environmental narratives according to the coordinates of two basic normative concerns: *efficiency* and *justice*. In particular, in each chapter dedicated to an environmental narrative, I will analyze which elements of the normative presuppositions of the various narratives are associated with a concern for efficiency and which other elements with a concern for justice, and I will try to understand what the balance between these two normative concerns tell us about each specific approach to environmental problem-solving. The second matrix considers the normative presuppositions informing the environmental narratives according to three different categories: *clashes*, *continuities*, and *blind spots*. This second set of categories will allow me to give a sense of perspective and depth to the debates by considering whether two or more environmental positions are truly incompatible, whether there is a common underlying thread which unites two or more of these positions, or whether there are similar concerns which are then interpreted through different normative theories.

What makes this approach a meso-level one, as opposed to a macro approach? And what are its merits? First, the analysis carried out in the following chapters departs

from common and popular positions in environmental debates which are already out there and ubiquitous in the trenches of environmental politics. I do not seek to superimpose a new external normative perspective upon an environmental conflict because it is allegedly better than the other ones on some specific - and often disputable - account; nor do I seek to defend an existing normative perspective. Second, each of the normative presuppositions underlying the environmental narratives explored throughout this book would qualify, if taken in isolation, as a macro approach, in the sense explored above. The added value of the type of research developed here is that they are not considered in isolation. They are, instead, analyzed, critiqued, and compared to each other by means of the classificatory work done by the two matrices. In other words, instead of choosing an overarching normative stance and then illuminating its theoretical and practical consequences, the approach taken here considers a multiplicity of popular positions in environmental politics and tries to explore what the relationships among these positions mean for a certain environmental conflict as a whole.

The first thesis I defend in this book is that macro approaches to environmental politics are ultimately reductive and fail to make sense of what is at stake in specific environmental conflicts; I will argue for this, in particular, by showing how each one of the normative presuppositions underlying the environmental narratives has "blind spots." As a consequence, holding on to one comprehensive view in environmental politics *ipso facto* is an obstacle to appreciating the internally coherent and, at times, sensible stances of other competing views. The second thesis I defend in this book is that a meso-level approach of the likes of the one explored here is much more useful than the macro one for understanding the complexity of specific environmental conflicts and offers us the opportunity to understand why certain environmental conflicts are resistant to resolution. Lastly, the book is also an exercise in clarifying complexity in environmental politics: it does so by analyzing three popular environmental narratives which regularly surface during environmental debates and by confronting them with the analytical categories employed by the meso-level approach adopted here (those included in the two matrices, but also others which will be introduced later in the book: e.g. relevant information, individual agency, locus of decision making, governance model).

I will develop my argument by starting from a specific case of environmental conflict: the Yasuní-ITT Initiative proposed by the government of Ecuador in 2007. This Initiative, as we will see in the following chapter, lends itself to be analyzed both from a global and macro-level approach and from the meso-level approach adopted in the book; by bringing up this specific conflict I hope to show what are the merits of the road taken here compared to the more standard macro analyses found in literature.

AN OUTLINE OF THE BOOK

In Chapter 1 I introduce the theoretical toolbox - case study, concepts, and methods - which will be employed throughout the rest of the book. First, I present the Yasuní-ITT Initiative of Ecuador as an example of a complex environmental conflict. Second, I introduce the three main environmental narratives mentioned above, along with an explanation of why environmental narratives are useful in the context of the meso-level approach adopted here. Finally, I also introduce the two matrices, with an explanation of the rationale behind their employment, and the contribution they are supposed to provide in the context of this research. Each of the three following chapters - Ch. 2, 3, and 4 - is dedicated to the analysis one of the environmental narratives mentioned above and properly introduced in Chapter 1.

In Chapter 2 I analyze the narrative of ecological modernization. Here, I take a close look at the arguments used to establish a link between economic growth and environmental protection. Then I turn to the analysis of the mechanisms upon which policy makers usually rely to enlarge the economic pie, and hence grow the economy: cost-benefit analysis and the market. I analyze how they have been and still are used in the context of environmental policy and, while doing so, I also point to the contested presuppositions which undergird their widespread employment. A full treatment of the contested normative presuppositions will have to wait, however, until Chapter 5 where the main arguments behind the narrative of ecological modernization will be further clarified and compared to those of the other narratives. In the second part of the chapter dedicated to the narrative of ecological modernization I consider the arguments on grounds of justice which justify the employment of market mechanisms in the environmental sector. I identify two of such arguments: one is embedded in Robert Nozick's theory of justice as entitlements; the other, in David Gauthier's theory of justice as self-interested reciprocity. I also analyze the claim that the presuppositions behind these two theories inform some of the features of the environmental regimes in international law.

In Chapter 3 I analyze the narrative of civic environmentalism. I briefly review, at the beginning of the chapter, the likely reasons which lead to the development of this narrative within environmental governance. I identify two concerns which the supporters of civic environmentalism are likely to voice against the proponents of ecological modernization. According to the first of these concerns, market-based instruments alone might well provide environmental protection but it is contested that they can provide *equitable* environmental protection. According to the second one, efficiency arguments are consistently used to set the political agenda of disparate disciplines engaged in environmental protection; the consequence of this is a bias towards, and overrepresentation of, a particular set of normative ideas - those linked with welfare economics -, and, potentially, a problem of legitimacy. Then I show how these two concerns paved the way for a narrative which centers on the idea of public participation and redistributive justice. I identify two different ideas of participation within this narrative: participation in terms of "providing information to the policy-

makers" and participation in terms of "being present at the decision-making table." I contend that the first is closely linked with an aggregative model of democracy and that it encapsulates an idea of democratic efficiency; the second idea of participation is instead linked with a different model of democracy, and its normative underpinnings have to be researched in the normative presuppositions of participatory democracy and political liberalism.

In Chapter 4 I analyze the narrative of radical environmentalism. First, I parse and systematize the burgeoning literature on radical ideas in environmental politics into two core issues which radical environmentalism scholars tend to care about and focus on: (i) the concern for the commodification of nature and its services; (ii) the conviction that economic growth is the true cause of environmental degradation. I then treat the two core issues - commodification and economic growth - in turn. Underpinning the concern for the commodification of nature, I find both anthropocentric and non-anthropocentric arguments, as well as both consequentialist and deontological arguments. Concerning the issue of economic growth, I analyze in some detail, in the second part of Chapter 4, the radical opposition to it and, given the sensible criticism which can be mounted against economic growth as an overarching policy objective, I proceed to inquire, specifically, what it is, both in our economic thinking and in our liberal theories of distributive justice, that prevents policy makers to do away with economic growth. I analyze which aspects of welfare economics and which aspects of our liberal theories of distributive justice are more prone to be criticized from the point of view of radical environmentalism scholars who would like to do away with economic growth as an overarching policy objective. In light of these two polemic targets, the chapter can be read as a sustained criticism of the competing environmental narratives of ecological modernization and civic environmentalism.

If I were to narrate how the three chapters follow each other with respect to the issue of economic growth, I would say that the narrative of ecological modernization deems economic growth beneficial for the environment; the narrative of civic environmentalism treats economic growth with suspicion: while it can be good for environmental protection, it also creates negative social consequences which need to be addressed through procedural and redistributive measures; the narrative of radical environmentalism takes a hard negative stance toward economic growth as it is excluded that it can do good for the environment.

In Chapter 5 I provide a bird's eye view of the differences among the three environmental narratives and their relative presuppositions. I analyze these differences in terms of the three analytical categories introduced in Chapter 1: clashes, continuities, and blind spots. Finally, I also clarify the meaning of these different relationships among narratives for environmental politics: clashes among the narratives and blind spots in how each narrative represents its competitors are what makes the debates about the appropriate means to tackle environmental problems stubbornly enduring and what makes it so polarized.

A Conclusion follows in which I briefly summarize the main steps made along the way. In particular, I resort, once again, to the two matrices introduced in Chapter 1 and

employed in Chapters 2 to 4 (*efficiency vs. justice* matrix) and in Chapter 5 (*clashes, continuities, and blind spots* matrix) to paint a picture of the inherent tensions and conflicts which shape environmental politics and, in particular, conflicts around market-based policies. Then, I return to the case of Ecuador presented in Chapter 1, briefly exploring how the meso-level approach can be useful for policy analysis.

CHAPTER I
THE YASUNÍ-ITT INITIATIVE, THREE NARRATIVES, AND TWO MATRICES

THE YASUNÍ-ITT INITIATIVE AND THE ACCUSATION OF ENVIRONMENTAL BLACKMAIL

In June 2007, Ecuadorian President Rafael Correa announced that he would forgo oil profits from one of the country's largest oil reserves (20% of its proven reserves) in the Amazonian Yasuní National Park in exchange for donations from the international community to pay Ecuadorians to keep oil underground. Here are his actual words:

"Ecuador doesn't ask for charity, but does ask that the international community share in the sacrifice and compensates us with at least half of what our country would receive, in recognition of the environmental benefits that would be generated by keeping this oil underground" (President Correa, 2007).

The Yasuní-ITT Initiative, named after the reserve's oil fields Ishpingo, Tambococha, and Tiputini, is a plan which, following the reconstruction of Carlos Larrea and Lavinia Warnars (Larrea and Warnars, 2009), could have fulfilled three main objectives. The first is to protect biodiversity. The Yasuní National Park is a UNESCO Man and Biosphere Reserve of 982,000 hectares, considered by many scientists to be the single most biodiverse spot on the planet (Fontaine and Navarrez, 2007; Finer *et al*., 2009). Such an incredible biodiversity could be highly jeopardized if deforestation and oil drilling are allowed (Bass *et al*., 2010). This, however, is not the only risk: biodiversity is also endangered by the colonization of the area allowed by camps and roads. This could lead to secondary deforestation, fragmentation of habitats and intensified hunting and fishing (Franzen, 2006). The second is the reduction of CO_2 emissions. There are three ways in which the Yasuní initiative could have allegedly helped in reducing CO_2 emissions and thus helped in limiting global warming: firstly, the oil not drilled would not have been processed; secondly, the emissions coming from deforestation and forest degradation would have been reduced; thirdly, the Yasuní initiative sought to reinvest part of the found in renewable energy projects. The third objective would be to reduce poverty in Ecuador. The money coming from the fund could have been allocated to health, education, and social development in order to ease the condition of those - a third of the total population - who live below the poverty line.

Soon after it was first put forward, this policy attracted both praise and considerable criticism. Praiseworthy remarks came from those who saw it as a market-friendly solution to mitigate climate change: those who forego opportunity costs are compensated, those who pay might eventually end up paying less than what they would have paid for equally effective alternative mitigation instruments, such as costly end-of-pipe technologies (Ripley, 2011). Critical remarks came from those who saw the risk of giving money for actions which might not eventually lead to a reduction in greenhouse gasses (Bucaram *et al*., 2016) - an issue of additionality, in the technical parlance sometimes used in the debates about climate mitigation. Another source of worry had been the potential for imitation which such policy could carry in the developing world. "Yasunization" even became a word among the activist circles committed to a post-oil society, used to refer to policies which aim to "keep oil in the soil" while asking compensation for it (Rosendal *et al*., 2008; Temper *et al*., 2013). Other critical remarks came from those who saw the risk of compensating someone else for refraining from doing something which should not, allegedly, be done in the first place. Less diplomatically, some critical voices called the Yasuní-ITT Initiative a potential case of environmental blackmail which could spin out of control among the resource-rich countries still on the path of development.

It is not unreasonable to imagine that the Guyanese attempt at pricing part of its forests had been inspired by the Yasuní-ITT Initiative (and the initial success it gathered when it was launched). In December 2008, Guyanese President Bharrat Jagdeo suggested that something similar to the Yasuní-ITT Initiative could be realized in Guyana. According to the 8th biannual Report on the State of the World's Forest (FAO, 2009), Guyana has had minor cases of deforestation between 1990 and 2005. Low deforestation rates could be an asset if there were a system which rewards good environmental performances. Jagdeo thus commissioned the consulting firm McKinsey to produce a report exploring possible solutions (McKinsey & Company, 2008). In the foreword of the published report titled *Creating Incentives to Avoid Deforestation* Jagdeo writes:

"Much deforestation happens because individuals, communities, and countries pursue legitimate economic activities – such as selling timber or earning money and creating jobs in agriculture. The world economy values these activities. It does not value most of the services that forests provide when trees are kept alive, including the avoidance of greenhouse gases emission. Correcting this market failure is the only long-term solution to deforestation" (President Jagdeo, in McKinsey & Company, 2008).

Excusatio non petita... some may say, below in the foreword of the Report, Jagdeo adds that this is:

"Not in any way a threat, or a suggestion that we will deliberately destroy our forest if the world does not pay us" (President Jagdeo, in McKinsey & Company, 2008).

The following are the figures employed in the report to sustain the claim that incentives not to destroy part of Guyana forests have to be provided: Guyana can earn between US$4.3 billion and US$23.4 billion if the country decides to aggressively pursue economically rational land use opportunities. Guyana could increase its deforestation rate to 4.3 % per year, destroying all forest outside protected areas in 25 years. By protecting its forest, Guyana forgoes economically rational opportunities that could amount to between US$430 million and US$2.3 billion in additional value per year. As expected, according to President Jagdeo and the authors of the report, the reasons that justify the creation of further incentives to avoid deforestation are incredibly valuable (they are similar to those put forward by President Correa). Indeed, Guyana needs "better schools and hospitals, teachers and doctors, economic opportunities and jobs for the citizens" (McKinsey & Company, 2008: 1).

The position of Ecuador was unique because of the presence of indigenous people, rich biodiversity, and oil. Guyana was instead trying to adopt a similar proposal to a more common situation: a fairly homogenous large forested area with a low deforestation rate which could have been made more profitable, were the right economic incentives to be introduced. The publication of the "Creating Incentives" Report can also be seen as an attempt to exploit the logic behind the Yasuní-ITT Initiative to push the debate on Reducing Emissions from Deforestation and Forest Degradation (REDD) which at the time was still in its infancy.

REDD mechanisms are forestry climate mitigation instruments which reward the sustainable management of forests and forest resources. They have been proposed in the context of international negotiations on climate change and first tabled in international negotiations by Papua New Guinea and Costa Rica on behalf of the Coalition of Rainforest Nations (UNFCCC, 2005). That forests not only occupy a pivotal role in the sustainable development strategies of local forest-dependent communities but also as climate mitigation instruments was already acknowledged in the 1992 treaty which established the United Nations Framework Convention on Climate Change (UNFCCC). For this reason, the negotiators responsible for crafting the first binding climate regime pondered over the possibility of carving out a role for forest instruments within the Kyoto Protocol. The scope of the Protocol did include afforestation and reforestation projects, yet it failed to also include the *management* of existing forests, due to legitimate concerns over issues of additionality and leakage,[1] which could not have been properly settled in the time available before the treaty entered into force. In 2005 the issue was again tabled by the Coalition for Rainforest Nations (CfRN), yet at the time the proposal only focused on deforestation. Due to pressure from countries within the CfRN which were experiencing an array of dynamics which were harmful to their

[1] A project or activity is additional if there is a net positive difference that is a direct consequence of this project or activity. In other words, a forestry project is additional when certain emission reductions would not have occurred, were the activity or project not be implemented. Leakage refers to an indirect consequence which could unfold as a consequence of a certain activity. In other words, a forestry project "leaks" if the emission reductions obtained are then counterweighted by emission increases somewhere else.

forests, yet could not strictly speaking be subsumed under the category of deforestation, such as those of the Congo Basin, RED acquired its second "D" - thus becoming REDD – and as such was officially adopted at 14th Conference of the Parties (COP) of the UNFCCC in 2008. Due to additional pressures from other countries whose forest cover was not in decline (e.g. India and China), but which nonetheless feared that, in the absence of the right incentives to manage the forests sustainably, their forests were also bound to degrade, REDD acquired its "+," which stands for the conservation of forests, their sustainable management, and for the enhancement of their carbon stocks. With the negotiations on REDD+ advancing, the focus progressively shifted from the "what" and "why" questions to "how" questions. The management of forests needs to be respectful of the local communities and their ways of life, thus COP 16 in 2010 introduced the so-called REDD+ Safeguards to account for the social impacts of these mitigation instruments. Furthermore, once it became clear that the management of forests might have been included in the national mitigation targets of the post-Kyoto arrangements, additional efforts have been made to clarify the procedures to measure, report, and verify the existing and projected amount of carbon stocks; precisely to avoid issues of additionality and leakage. The Intergovernmental Panel on Climate Change (IPCC) – the scientific arm of the UNFCCC – had already been tasked to study the matter and provide guidelines on how to properly account for carbon stock exchanges (Penman *et al*., 2003).

Parallel to the slow but progressive institutionalization of REDD+ within the UNFCCC, some REDD and REDD+ projects have been proposed by private actors; these, however, do not count towards the meeting of national emission reduction targets but only towards meeting voluntary emission reduction pledges. The uptake of REDD+ from the private sector is mainly due to two reasons. First, many private actors developed REDD+ projects with the hope of gaining a competitive advantage: had the independently certificated emission reductions produced by the projects been allowed to be traded in carbon markets around the world - i.e. used by companies in order to meet carbon regulations -, the value of the carbon credits would have increased and those companies which had already gained experience in managing these projects would have been in a better position to start new highly profitable REDD+ projects (Laing *et al*., 2015). Second, these early REDD+ projects - especially those financed by public donors - contribute to the complex process of data and knowledge gathering which is useful to refine the methods of carbon measuring and reporting as well as safeguards reporting.[2]

The Yasuní-ITT Initiative, the Guyana proposal, together with REDD(+), the backing of which it is not unreasonable to think was the real objective of Guyana's "Creating Incentives" report, share some fundamental features. They all represent the practice of asking for money contributions in order not to capitalize on natural resources globally benefited yet *prima facie* rightfully locally exploitable. Or - using the vocabulary of economics - they are cases in which one's party relinquishment of the lawful possibility of exploiting a natural resource is accompanied by the demand for the

[2] For a review on the development of REDD+ throughout its phases, see den Besten *et al*. (2013).

compensation of the opportunity costs lost. They are all so-called market-based instruments. And they have all been accused of being potential cases of environmental blackmail.

The expression "environmental blackmail" seems to occur for the first time in a 1992 article titled "Environmental blackmail in minority communities" by Robert Bullard; the expression, back then, mainly referred to a different practice, i.e. big companies forcing the local minorities to bear the burden of environmental reforms by leveraging on their stronger bargaining position since they are the only employers of those minorities - often lower-income people (Bullard, 1992). More recently, the expression has been used in order to refer to the action of President Obama Administration's Environmental Protection Agency (EPA) of issuing an "endangerment" finding whose main aim was to force Congress' hands to pass a cap-and-trade legislation to preempt a much worse regulatory regime (Schulz, 2009).

In the aftermath of the cold war, the expression has been used to describe behavior which bears some resemblance with the attempted policies of Ecuador and Guyana. Russia "threatened" to resume the Soviet-era practice of dumping radioactive wastes into the Arctic and the Pacific Ocean unless affluent neighboring countries agreed to finance alternative solutions to its waste disposal problem. Newly formed Ukraine "threatened" to resuscitate the Chernobyl nuclear power plant unless paid not to do so (Darst, 2001).

The parallel between the Yasuní-ITT Initiative and "environmental blackmail" has been suggested by journalists and academics alike who covered the policies put forward by Ecuador and Guyana. TIME Magazine titled a long report "Rainforest for Ransom" (Walsh, 2011); the Chicago Tribune titled an article about the Yasuní-ITT Initiative "Ransoming Paradise" (Chicago Tribune, February 5, 2012). Behind the flashy headlines, both articles suggest that the question is more complex than their titles made it be, but still clung to the idea that some form of threat is at play. Ecuadorean journalist Lorena Fernández in an article titled "Get real, Ecuador" claims that the Initiative resembles a form of extortion (Fernández, 2011); David Kestenbaum in the radio program "Planet Money" aired on NPR in February 2013 said that the sales pitch of the proponents of the Initiative "runs the risk of sounding a bit like blackmail" (Kastenbaum, 2013).

Politicians weighed in on the issue, too. According to Dirk Niebel, a former German economic cooperation and development Minister, the Yasuní-ITT Initiative could be a dangerous precedent that could trigger a slippery slope towards a situation in which other states could potentially bargain a compensation in exchange for leaving the natural resources untouched (Niebel, 2011; Trumpf, 2011). A criticism close to Niebel's position has been put forward by the authors of the FNI report for the Norwegian Ministry of Environment (Rosandal *et al.,* 2008: 23). Their concern focuses on the fact that other countries which have already foregone the extraction of oil reserves situated in protected areas might use a similar policy in order to leave the oil underground - something that they would have done anyway - and ask money for it (this would be the case of Brazil, for example). The same stance had been taken by Billy Pizer, a former

deputy assistant secretary for environment and energy under President Obama (now Professor at Duke University); this contributed to the US eventually not contributing to the Ecuadorean Initiative (Luft, 2015).

Hans Gregersen *et al*., in an analysis of the use of opportunity costs to determine the value of ecosystem services, explicitly referred to Guyana's publication *Creating Incentives to Avoid Deforestation* as a case of environmental blackmail (Gregersen *et al*., 2010: 4). Chris Lang, from his influential blog on REDD policies (redd-monitor.org), had been very critical of the McKinsey-inspired Guyana's proposal and wrote that a more fitting title for the Report could have been "Hand over the money or we'll destroy the forests" (Lang, 2009).

Many authors and activists - including Gregersen *et al*. (2010), Alain Karsenty *et al*. (2014), and climate justice activist Michael Schmidlehner (2016) who use the expression "environmental blackmail"; Anthony Hall (2011) who uses "greenmail"; and Beth Evans (2015) who uses "ecological blackmail" - use "blackmail" or expressions which bear a family resemblance to it to speak more in general of the perils of market-based mechanisms such as REDD which allegedly reward the good management of forests against a projected yet abstract baseline.

It is the debate about blackmail which resonated most forcefully internationally with reference to the cases of Guyana and, in particular, Ecuador and its Yasuní-ITT Initiative. However, whereas, on the one hand, through the lens of this accusation we can start to appreciate what is at stake in these cases of environmental conflicts, on the other, this accusation masks some of the complexities which these cases raise.

The reference to blackmail plunges us into a moral dimension of politics in which politicians should refrain from doing what seems most immediately beneficial to them personally or their country in order to supposedly do "the right thing." In other words, these accusations add a quintessentially normative dimension to these debates: not whether the policies would effectively bring the promised improvement in sustainability or environmental quality, neither a purely "not worth the candle" problem, i.e. a question of economic efficiency. The category of blackmail recalls right away a dimension of fairness. This means that there is, apart from the scientific debates about the quantity of greenhouse gasses in the atmosphere or the quality of the soil, also a debate about the values and principles which should inform our responses to the environmental changes under way. For those engaged, day in and day out, in these debates in academia, think-tanks, NGOs, this is not particularly novel or striking news; but, in the generalist press or television, this value-dimension of the debate is usually squeezed out between issues of legality - what we can do in terms of some pre-existing legal document or legal convention - and economic efficiency - whether it is economically rational to undertake a certain course of action. Value debates occasionally resurface when some milestone international agreement is in the pipeline, such as COP 21 in December 2015. But even then, they are sometimes minimized under a simple *Realpolitik* reading of international relations: incomprehension between parties arise when there are two equally reasonable courses of actions; yet these are nonetheless incompatible given different circumstances and goals.

The problem with this "more international" debate about blackmail, however, is that it misses the trees for the forest, which, I would argue, it can be equally as bad as its more popular antitheses: missing the forest for the trees. In other words, if forced to follow through, and inquire into, the accusation of blackmail, a researcher would soon find herself engaged in grand global justice theorizing which seldom can be marshaled in the context of specific environmental conflicts and which at most gets strategically invoked for advocacy purposes during international climate conferences or similar occasions. According to a popular theory provided by James Lindgren - the so-called *Chips theory* -, blackmail is wrong because "the blackmailer is negotiating for his own gain with someone else's leverage or bargaining chips" (Lindgren, 1984: 702).[3] This definition would force the researcher to consider what is the nature of the bargaining chips the blackmailer - in this case, the State and its representatives - is negotiating away, and who owns those bargaining chips in the first place. In the specific case of the Yasuní-ITT Initiative, what is allegedly being negotiated away is the health, integrity, biodiversity of a pristine environment. But who "owns" those things? This would prompt the researcher to go back, first, to the issue of ownership of natural resources and, second, in order to settle the issue of blackmail, to how they should be allocated, if at all. The first of these issues plunges us into the literature on territorial rights over lands and resources and the various arguments in order to argue in favor of there being a connection between states and their resources (e.g. Miller, 2012; Nine, 2012) or against it (e.g. Armstrong, 2015), and would take us, ultimately, to the question whether it is right that states enjoy permanent sovereignty over natural resources, as international law puts it. The second issue concerns more squarely issues of global distributive justice.[4]

These analyses tell us little in the way of how specific environmental conflicts should be understood or solved here and now; on the other hand, they are powerful and worth exploring - not here, however - precisely because they transcend the conflicts here and now. In other words, the problem of analyzing environmental policies such as the Yasuní-ITT Initiative through the lens of blackmail and, hence, ultimately through the lens of global justice, is that they can take us only so far in understanding the complexities behind the Yasuní-ITT Initiative and similar environmental conflicts because, by doing so, we would totally bypass the problems and concerns which inspired and made popular these policies and initiatives in the first place.

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[3] Lindgren's popular theory is only one among many which try to properly define which behaviors and cases fall under the concept of blackmail. This is a particularly lively area of research in political philosophy and philosophy of law because of the so-called "paradox of blackmail," i.e. making sense of the fact that blackmail - which is considered wrong - is made up of acts which, taken in isolation, are not considered *per se* wrong, such as (i) threatening to reveal embarrassing information about a person, and (ii) asking money. For a comprehensive review of the literature see (Berman, 2011).

[4] Lindgren's *chips theory* is taken just as an example of how a research which departs from the accusation of blackmail would develop. Other theories of blackmail would engender largely similar approaches. For example, Robert Nozick's theory of blackmail as involuntary and unproductive exchange would force a researcher, again, to assess who or which entity has the right to exploit a natural resource in order to settle whether or not the exchange is unproductive (Nozick, 1974: 84).

Why is it important to offer an image as faithful as possible of the problems and concerns which inspired the Initiative? It might not seem important: seen through the lens of blackmail, cases such as the Yasuní-ITT Initiative can be used as a pretext to tell a story about global justice and natural resources. Chris Armstrong, for example, did precisely that (Armstrong, 2016). He opens his article with the case of the Yasuní-ITT Initiative and then proceeds to argue that compensation for forest-rich countries is justified in certain cases on the basis of a principle of global egalitarian justice. But if one wants to understand what makes these types of environmental conflicts so complex and polarized and resistant to resolution - even after a well-worked out argument in favor of one of the positions such as Armstrong's had been put forward - then one cannot avoid getting one's hands dirty with the specificity of the policy and the competing and, at times, incommensurable demands of justice it raises. To do this, it is necessary to leave behind the international debate about blackmail and delve into the national debate, which had been much richer and much more grounded in the specific problems of Ecuador and South America.

THE COMPLEXITY OF THE SITUATION ON THE GROUND

Going back to the first page of this introduction, President Correa launched the Yasuní-ITT Initiative in 2007. The purpose of the Initiative was to leave the oil in the soil in exchange for compensation - half of the opportunity costs lost - which could have been used to cover the expenses necessary to enlarge the welfare system of the country and protect its environment and natural resources. What happened next? But more important - to understand the policy in its context -, what happened before?

In August 2013 President Correa went on national television and announced "with great sadness" - his own words - that he would cancel the plan to leave the oil underground in the Ishpingo, Tambococha, and Tiputini zones of the Yasuní National Park. Why? "The world has failed us" said President Correa (President Correa, 2013). To succeed, the Initiative would have needed a monetary contribution of 3.6 billion dollars. The estimate on the dimension of the oil fields upon which these figures are based was also controversial and difficult to check, but it is not the point here. In August, only 336 million dollars have been pledged and 13,3 million reported in the actual fund set up by Ecuador and jointly administered with UNDP. The world failed Ecuador - according to President Correa - because the developed states are not willing to put the money where their mouths are, one might say. In other words, developed countries emit most of the global CO_2 but they are not willing to support smaller nations which try to find alternative ways of developing, while at the same time not exploiting the environment. President Correa called the richest countries hypocrite. This is how the story of the Yasuní-ITT Initiative was told the last time it grabbed the headlines of news outlets around the world (Associated Press, 2013).

In October 2016, Ecuador confirmed that drilling was taking place in the Yasuní National Park. A government's spokesman told *The Guardian* that all the latest

technologies in drilling had been employed, the pipelines buried deep underneath the soil, and the areas above quickly re-vegetated (Vidal, 2016); these measures would allegedly minimize the environmental impact of oil exploitation. Critics have lamented the absence of transparency: the site was militarized and independent monitoring from civil society and scientists was prohibited. They also lamented that, in any case, it was too early to tell whether following these "best practices" would suffice to exploit the oil in a way that does not negatively impact the environment (Koenig, program director of Amazon Watch; quoted in Hance, 2016).

The few lines above are just a snapshot of what happened to the Yasuní-ITT Initiative throughout the last decade and how this story has been told in the media in the Western world. However, to fully appreciate the complexities which such policy raised, it is necessary to go back to the moments when the Yasuní-ITT Initiative was first put forward and retell its story through the lenses of the different political actors in the Ecuadorean society. When it was first put forward in 2006, i.e. even before Correa publicly supported it in front of the international community in 2007 (Correa, 2007), and then again in 2009 (at Chatham House in London; Correa, 2009), the Yasuní-ITT Initiative had been hailed as a remarkable success of Ecuadorean environmental activism. It was Acción Ecológica (AE) - an Ecuadorean environmental non-governmental organization (ENGO) with a long history of environmental activism in support of ending new concessions of oil blocks in the Amazon Forest - which capitalized on the new momentum in Ecuadorean politics to push the Initiative into the front lines of national and international environmental politics.

The ideas which inform the work of Acción Ecológica are those one would readily associate with fierce on-the-ground environmental activism which, moreover, is also a serious presence on the Ecuadorean political scene. AE had been at the forefront of the battle to see the "rights of nature" been explicitly recognized in Ecuador's new 2008 Constitution, it kept criticizing the extractivist policies of the government, and, through the years, AE positioned itself as a scientifically rigorous political presence by availing itself of the consulting work of famous ecological economists such as Joan Martínez-Alier to support its various battles.

All these diverse ideas and positions coalesced, in the early 2000s, around the notion of ecological debt. In other words, given the consequences of the extractivist industries in Latin America - in terms of displacement and aggression of indigenous population which opposed oil concessions, in terms of environmental damages to pristine areas,[5] and in terms of the historical interference of foreign governments in the national politics -, organizations such as Acción Ecológica managed to add a further dimension to the internal debates about debt which partially reversed the creditor-debtor relation: "the North owes the South historical, social and ecological debt" (Martínez-Alier *et al*., 2011: 24, see also Figure 2 in the article).

[5] The most famous and most dramatic of such damages is the environmental catastrophe allegedly caused by Chevron/Texaco. "Allegedly", because the lawsuit which pits Ecuador against Chevron/Texaco for compensations of the environmental and social harms left by the multinational oil company after its operation in Ecuador is still underway.

The story-line around ecological debt forcefully resounded with the Ecuadorean population. Similarly to what happened throughout Latin America in the 70s and 80s, Ecuador had received the IMF and World Bank cure of loans and structural adjustments programs attached to those loans. When the oil price fell and interest rates rose, Ecuador could no longer use the bulk of oil revenues to finance national development programs, and over 50% of oil revenues had to go to servicing the debt contracted with the financial institutions. Leon Zamosc (2004) reckons that from 1974 to 1984, Ecuador's debt had increased from 324 million dollars to 8.4 billion. This led to a vicious circle in which more oil concessions had to be given away to service the enormous debt. Meanwhile, Veronica Davidov (2012) notes, large-scale geological surveys were being sponsored by the World Bank to encourage Ecuador to accurately map the location of Ecuador's natural resources in order to spur investments in the extractive industries. The issue of debt swept Latin America, and not just Ecuador: incomes dropped, unemployment rose, growth stagnated, and inflation reduced the buying power of the middle classes. It would be appropriate, at this point, to cite President Correa's own Ph.D. dissertation in economics - awarded by the University of Illinois at Urbana in 2001 - on the effects of the Washington Consensus policies in Latin America and the downsides of policies of economic liberalization (Hedgecoe, 2009).

Among the Ecuadorean population - since the late 1990s - a narrative emerged which questioned the economic, social, and environmental merits of the top-down policies of economic liberalization so far proposed. Ecuadoreans demanded a turnabout on these policies. The story-line around an ecological debt, of which Ecuadoreans are creditors, not debtors, is what allowed the environmental issues put forward by Acción Ecológica to enter into the wider policy arena. Oil concessions were, and still are, one of those issues. The Yasuní-ITT Initiative, which proposed to place a moratorium on the oil concessions of the ITT oil blocks of the Yasuní National Park, had been built around the concept of ecological debt. The idea behind the policy was to re-problematize the "Who owes to whom?" relation. Payments into the Yasuní-ITT fund would halt the degradation of the environment while, at the same time, contribute to servicing the huge ecological debt contracted by Northern countries. As Esperanza Martínez wrote, at the national level the Initiative sought to question the extractivist model of development to which, in the past, too many negative experiences have been linked. At the international level, the Initiative sought to question the inherent injustices of carbon markets (Martínez, 2013). In other words, the Yasuní Initiative - in the mind of the of Martínez, the President of AE - should not have been an instance of a flexibility mechanism in which business-as-usual somewhere is counterbalanced by a green project somewhere else: according to the proponents of the Initiative, leaving the oil in the ground would have collided head-on with this development model (Martínez, 2013). From the fringes of environmental activism, through the re-problematization of the debtor-creditor relation, the Yasuní-ITT Initiative had then been quickly taken up by a larger segment of the population and reconceptualized as an instrument of social justice.

Then came Correa. His agenda partly overlapped with the motives behind the Yasuní-ITT Initiative: he had been ushered into power by the demands for social justice

which also made the Yasuní-ITT Initiative popular among the Ecuadorean population. He ran on a platform which condemned economic inequality, both at home and internationally. This was consistent with his personal history: he was born into a poor family, when he was young his father turned to small-time drug trafficking due to a period of unemployment, and he had been able to study in some of the best schools of Ecuador and of the world (Louvain in Belgium, and University of Illinois) only thanks to scholarships and donations. It was also consistent with a larger movement for social reforms and debt contestation which swept the whole of Latin America: the Kirchners in Argentina, Evo Morales in Bolivia, Luiz Inácio Lula da Silva in Brazil, and Hugo Chávez in Venezuela - Correa kept a picture of the latter two on his desk (Hedgecoe, 2009). Correa's agenda, however, did not entirely overlap with the motives behind the Yasuní-ITT Initiative. In an almost off-the-cuff remark in a 2007 article about the demands for climate justice in Southern countries, Martínez-Alier presciently claimed that, while Correa's government supports the Yasuní-ITT Initiative, especially the Minister of Energy Alberto Acosta, "support from President Rafael Correa is not firm because he is by training a development economist with anti-environmental inclinations" (Martínez-Alier and Temper, 2007: 19). Since Correa's government officially adopted it as national policy, the story of Yasuní-ITT Initiative shows this ambivalent relationship between Correa's development agenda and the environmental ideals enshrined into the Yasuní-ITT Initiative.

In the hands of Correa, the Yasuní-ITT Initiative had been slowly but steadily separated from the ideas first put forward and advocated by Acción Ecológica. Martínez saw in the Initiative both a response to an extractivist business model at home and a challenge to neoliberal environmentalism internationally. Instead, Correa turned it on its head. Ecuador's debt surpassed 10 billion dollars by 2007. In the same year Correa, few months into his presidential office, created a commission in charge of auditing the "legitimacy, legality, and appropriateness" of Ecuador's debt, the Public Debt Audit Commission. The commission had been staffed with both Ecuadorean and international scholars; the outcome of the commission has been widely publicized both locally and internationally, and the final report can be easily found on the web, fully translated into English (CAIC, 2008). The final report of the Commission provided evidence concerning numerous frauds in the way Ecuador contracted its debt. Following the advice of the Commission, which recommended non-payment of part of the debt, especially the one contracted after the year 2000, Correa decided that Ecuador would not pay 3.2 billion dollars. He gave orders to go into "selective default" and called "real monsters" the people - previous Ecuadorean politicians and the staff of the international financial institutions[6] - who allegedly colluded to plunge Ecuador into debt.

As Davidov points out, Correa rose to power by directly clashing with this "monster economy" and, at the same time, proposing his vision of a new moral economy (Davidov, 2012). In his 2009 speech at Chatham House, in London, he

[6] He expelled World Bank representatives from Ecuador as *personae non gratae*, shortly after being elected.

juxtaposed the two economic models and fully articulated the differences between the two. The "monster economy" is the "selfish logic of the market," whereas his moral economy is "the logic of collective action and intergenerational cooperation." He then went on and argued that nature "has a high value but no price" because the current "monster economy" knows how to price goods but not how to price the value created by nature.

Correa believes that the neoclassic economy model has dramatic consequences, both socially and environmentally, and that a moral economy should internalize these moral concerns. Correa's equation of the "monster economy" with the economy *tout court* is partly correct and partly a strawman argument. There is no doubt that, historically, much economic development has, in some locations, caused social pain and environmental destruction. Ecuador, as a matter of fact, offers good examples of both. On the other hand, it is not true that economics as a discipline and economists as experts are not aware of the fact that, for certain goods and services, there is a mismatch between value and price and of the fact that this has particularly damaging consequences for the environment.

Correa, however, by linking the Initiative to a bigger concern for the development of its country - whether through a monster economy or a moral one - had already alienated the section of the population which supported the Initiative for reasons which had nothing to do with the economy. Martínez and the staff of Acción Ecológica devised the initiative as a response to the "neoliberal scheme" of extracting oil while offsetting carbon. Yet Correa, through the Yasuní-ITT Initiative, ended up selling that same vision of environmental protection. In particular, Martínez lamented that, once the Initiative became institutionalized, i.e. part of Ecuador's development program, the "discussions around Yasuní have consistently privileged the business section and neoliberal stream of environmentalism" (Martínez, 2013, 29). In the hands of Ecuador's government, the money raised by the Initiatives were no longer donations or contributions to a good cause which tries to keep the oil underground but a direct compensation for doing so. Ecuador's government had even tried to link the Initiative to the carbon market: the official document which sponsored the Yasuní-ITT Initiative at the climate negotiations in June 2008 in Bonn clearly stated that "buying a certified Yasuní credit gives a right to continue emitting carbon into the atmosphere" (Martínez, 2013, 29). When this approach failed, because of issues of additionality and leakage, Correa adopted a much more confrontational approach which asked for the compensation of the opportunity costs lost, to be calculated in terms of tons of CO_2 emissions avoided.

Ever since the policy had been officially axed, a part of the Ecuadorean civil society took it upon herself to ensure that the oil of the Yasuní remains in the soil. To a certain extent, the rhetoric about the "monster economy" of Correa, which still enjoys considerable popularity among Ecuadoreans, has been so successful, and Ecuadoreans so mindful of the environmental disasters brought by previous oil exploitation, that the environmental organizations of Ecuador managed to collect 850,000 signatures, more than the 600,000 required (5% of the population), to call for a referendum on the matter. Given the popularity of the Yasuní-ITT Initiative, had the referendum been carried out,

the environmental organizations would have probably won. We will never know. More than half a million signatures were discarded by the National Electoral Council, on the basis that many were repeats and others fake. Oil drilling is now underway in Yasuní National Park. Vice President of Ecuador Jorge Glas cannot, of course, afford to project the image of the "tough on oil" government of the early Correa presidency, and has more clearly subscribed to the idea of moral economic development, which underpinned Correa's rhetoric throughout the story of the Yasuní-ITT Initiative. As reported by *The Guardian*, on a visit to the drilling site in October 2016, Vice President Jorge Glas said that "This is the start of a new era for Ecuadorean oil. In this new era, first comes care for the environment and second responsibility for the communities and the economy, for the Ecuadorean people" (Vidal, 2016).

Through the prism of Ecuadorean politics, the Yasuní-ITT Initiative is not only - and more importantly, not primarily - a controversial proposal for an internationally sponsored development program. It is a contested political terrain in which different demands clash. There is, for example, from the perspective of certain Ecuadorean political actors, the request for a model of economic development which tries to encompass elements of non-anthropocentric justice into politics. There is a criticism of business-as-usual models of economic development and a willingness to move away from them as forcefully as possible. There is, no doubt, the expectation from the Ecuadorean population that their natural resources should, in one way or another, improve their wellbeing. But there is also a certain ambivalence in the Ecuadorean population towards the ideal use of natural resources: in the past, Ecuadorean natural resources had been exploited, but this had benefited Ecuadoreans only marginally, if at all. They now wanted to be involved in the decisions concerning the use of natural resources and they were aware, on the one hand, that the exploitation of resources often results in unforeseeable natural disasters and, on the other, they also feel that it was now their turn to fully benefit from the resources located on their territory. There is the government led by Correa which, for all its hard posturing with the international community, had to balance the demands of the Ecuadoreans for environmental quality and economic wellbeing with those of the foreign investors who might bring to the country the financial and technological resources and the necessary expertise to make those demands possible.

All of these positions seem sensible, but some of them also seem to be incompatible. For a moment, before it was officially taken up by the Ecuadorean government, the Yasuní-ITT Initiative seemed like a "silver bullet" policy option for Ecuador's development, capable of unifying the interests of the environmentalists, the government, and the citizens. Yet, once the Initiative had been institutionalized, the different interests in Ecuadorean society collided head-on against one another. The posture of Correa and his government against the international financial institutions contributed to ushering him into power, but the international distrust he generated by expelling the World Bank representatives and by taking the step to go into "selective default" also prevented that the Initiative be backed by the sufficient degree of trust required in these situations. For example, the German politician Niebel, mentioned

above, had been so suspicious of Correa's posture against the international institutions that he went as far as equating paying Ecuador not to drill for oil with paying Somalia not to let pirates attack shipping and pleasure vessels in the high waters in front of Somali coasts (Trumpf, 2011). Faced with this kind of pushback internationally, support from the government for a non-extractivist path to development dwindled - as predicted by Martínez-Alier -, whereas environmental activists remained firm on their positions.

Whereas the question about blackmail might be interesting *per se* or as a pretext to argue in favor of a specific position in the debate on global justice, it nonetheless hides this contested political terrain and it ultimately returns to us a reductive image of the real debate around the complex policy internationally known as the Yasuní-ITT Initiative in which no "silver bullet" position can hope, through reasoned argument alone, to gain the upper hand.

To do justice to the practical and theoretical difficulties these types of policy raise, and the enduring conflicts they create, a 'macro' account of environmental policies must give way to a '*meso-level*' *analysis* which is responsive to contextual considerations. These contextual considerations are often hidden behind a layer of complexity, disguised as semi-descriptive statements, dispersed in various political spaces: international regime negotiations, protest marches, local meetings, expert panels in the media. In this case, instead of asking what justifies a certain policy - which commands a macro approach -, a better question for the researcher would be, "how are certain types of policies already being implicitly justified and contested?" This question goes to the heart of the complexity raised by the debates around market-based environmental policies because it requires the researcher, first, to map the multiple answers already out there and, second, try to understand what makes those answers incompatible with each other. This research question has, therefore, the potential to explain the debates and conflicts around market-based policies.

In the study of environmental politics, the use of narratives as a research focus has been particularly useful to understand how certain policies come to be adopted while others are discarded without there sometimes being even a reasoned and principled political debate. For example, it matters a lot for policy-making whether indigenous populations living in forested areas are portrayed as backward populations employing traditional and outdated farming methods, or rather as living in a naturally sustainable manner like uncorrupted *bons sauvages*. The first narrative suggests paternalizing "we-know-better" attitudes which would partially justify the taking over of some forested areas in the name of their scientific sustainable management; the second, admiration towards their lifestyle and a less intervening attitude. As politics, and environmental politics is no different in this respect, always deals with decisions to be made, alternative scenarios, and possible outcomes, it follows that, even when a certain course of action is presented as inevitable through the clever deployment of a narrative, there are always normative presuppositions lurking behind. In the example above, those narratives do not by themselves clearly display normative elements, yet they are there: the normativity becomes visible through the interplay of the narrative with beliefs which we might already have. "Backward," "traditional," and "outdated" come together

with our default preference towards "progress," "scientific," and "modern" to make the "should," "ought to," and "it would be better if" of politics. In other words, narratives, even when they do seem to simply describe states of affairs, are also vehicles of implicit normative presuppositions.

To reply to the above question - "how are certain types of policies already being implicitly justified or contested?" -, it is of paramount importance that the debate be appropriately mapped. This requires the researcher to, first, unveil the normative stances that are already - so to speak - "out there." To do this, I decided to look at various environmental narratives, discourses, and ideologies, but most of all, at their "normative baggage." In other words, I will use environmental narratives to uncover the normative presuppositions behind the environmental debates on market-based mitigation policies, such as the Yasuní-ITT Initiative. This is a heuristic strategy which provides me with an entry point into environmental politics and it enables me to encounter and analyze the normative arguments as they are already employed in the day-to-day trenches of environmental politics. I will then analyze these normative presuppositions through the interpretative grids of two matrices: the first distinguishes the normative presuppositions underpinning the narratives in arguments on grounds of efficiency and arguments on grounds of justice; the second matrix explores the differences among the narratives and their normative presuppositions through three categories: clashes, continuities, and blind spots. I will return later on, in this introduction, on the role and purpose, within this research, of these two matrices. It is now time to introduce the environmental narratives which will guide us throughout the following three chapters.

ENVIRONMENTAL NARRATIVES AND THEIR NORMATIVE PRESUPPOSITIONS

Throughout the book, I have made use of the three environmental narratives to unveil the normative theories usually used in environmental politics to justify or reject market-based policies. These three narratives are partly borrowed from the analysis of Karin Bäckstrand and Eva Lövbrand (2006, 2007, 2016) of afforestation projects under the Clean Development Mechanism of the Kyoto Protocol. Bäckstrand and Lövbrand divide environmental politics into three narratives: green governmentality, ecological modernization, and civic environmentalism.

According to Bäckstrand and Lövbrand, green governmentality is a discourse which depicts the environment as a bounded entity which can be scientifically controlled. It is the discourse that - at least in industrialized societies - shapes the very understanding of nature and defines how human beings should relate to it: in terms of CO_2 emitted or saved, the amount of atmospheric particulate matter in cities, and square meters of degraded forests. Environmental problems consequently require solutions to be administered through the target-setting and monitoring of the substances or other elements which cause the climate to change and the environment to degrade. Ecological modernization is a discourse which promotes market solutions to environmental

problems on the ground that there are still many unexploited synergies between economic growth and environmental protection. Civic environmentalism is a discourse which sees the role of the public and the stakeholders in general as important for environmental protection on the ground that those who are personally affected by a problem should have a say in devising solutions which relate to them. Bäckstrand and Lövbrand distinguish between two different souls of civic environmentalism. A reform-oriented soul of civic environmentalism accepts that stakeholder governance could deliver on the promise of producing policies which solve environmental problems and, at the same time, keep in check the tendency of market mechanisms to produce wealth inequality. A radical soul of civic environmentalism remains skeptical both about the promise that market mechanisms could provide viable solutions to environmental degradation and about the promise that institutions through which stakeholder governance is channeled could redress the inequalities produced by the employment of market mechanism.

Given that my focus is on the normative debates around market-based environmental policies, I decided to adapt Bäckstrand and Lövbrand's analysis to my needs. Bäckstrand and Lövbrand's first discourse - green governmentality - does not display polarizing elements. In other words, nowadays, across the debate spectrum around market-based policies, the defining elements which characterize the green governmentality discourse are mostly accepted. More than that, these elements are instrumental to the other narratives. Both market-enthusiasts and eco-socialists accept that the environment is in a poor state and ground their analysis on the same literature: the report, and its periodical updates, about the limits to economic growth (Meadows *et al.,* 1972) and the research on the carrying capacity of the Earth (Rockstrom *et al*., 2009). Green governmentality is thus a shared understanding of nature which crosses discursive boundaries. It is thus unlikely that an analysis of green governmentality will give us a glimpse into *contested* normative presuppositions which could tell us something about market-based instruments and the heated debate which they have originated. On the other hand, the distinction between the reformed and the radical souls of civic environmentalism is more than a little difference in sensitivity. It is a deep rift - as we will see in the following chapters - in which competing normative presuppositions cannot live side-by-side in a coherent narrative. This stark separation seems to be implicitly accepted by Bäckstrand and Lövbrand themselves, who, in one of their latest joint contributions (Bäckstrand and Lövbrand, 2016), seem to shift the boundaries of their discursive system. They narrow the differences between reformed civic environmentalism and ecological modernization on the ground that both seem to accept that environmental degradation is a "problem nexus" to be tackled through market-based mechanisms in a dispersed manner: states, stakeholders, businesses, NGOs contribute to climate mitigation by looking at viable opportunities when and where they arise. Next to this shift, which sees reformed civic environmentalism conceptually closer to ecological modernization, they also talk about a "resurgence of radical civic environmentalism" which is unlikely to go away, and instead finds expression outside the usual venues in which environmental politics is made.

It needs to be mentioned, at this point, that the most comprehensive analysis of environmental politics from a discourse perspective is probably John Dryzek's *The Politics of the Earth* (2013). Dryzek's book slices environmental politics into nine different discourses; however, his conceptual rigor does not always follow how policies are actually designed and implemented. More often than not, by following Dryzek, one has to analyze environmental policies by combining the discursive elements of different discourses. This allows for a more fine-grained analysis of specific policies, yet we lose sight of the general trends emerging around environmental policies. For example, whereas Maarten Hajer (1995) and Bäckstrand and Lövbrand (2006) lump together the poorly defined concept of sustainable development with the discourse of ecological modernization, on the basis that they both represent a response to the discourse on limits initiated by the Club of Rome, Dryzek splits them up by arguing that sustainable development simply asserts that economic growth and environmental conservation can be reconciled; while ecological modernization goes further, conservation can not only be reconciled with growth but it is actually good for businesses. In a sense, Bäckstrand and Lövbrand already put together the discursive elements that are likely to go hand-in-hand, thus simplifying the task of situating environmental policies in a spectrum of fewer and more general discourses. For example, Bäckstrand and Lövbrand analyze the discourse of ecological modernization in terms of a market-driven and expert-led approach to ecological problem-solving. In Dryzek's book, each of these discursive elements - market-drivenness, being expert-led - are parceled out to account for the relatively fewer cases in which an environmental policy is, for example, market-driven but not expert-led. The simpler discursive apparatus put in place by Bäckstrand and Lövbrand seems, therefore, to provide a better entry point into my analysis of the normative theories in the public space which already justify or condemn market-based mitigation instruments.

The previous point brings me to make a much-needed clarification. The narratives introduced above, and which I will use throughout this research, are analytical constructs which abstract from reality certain key features of social types. They are so-called ideal types. Whereas, on the one hand, it is not possible to justify the employment of these ideal types on the basis that they precisely replicate the social reality - they do it, but with some approximation -, on the other, their employment is nonetheless useful to the extent that they enable a researcher to study and explain social phenomena from a distinctively qualitative point of view. Furthermore, the employment of ideal types is also justified in the context of the epistemological status of environmental research. Ideal types - at least in the present research as well as in Weber's original construct (Hekman, 1983) - are one-sided: the points of view and perspectives which they reflect are partial. This point will be better developed in Chapter 5 by showing how each narrative has "blind spots."

In the following paragraphs, I will present in some more detail the three narratives I have decided to analyze. The choice has been made on the basis that their normative presuppositions seem to be sufficiently different to tell us something about the

complexity of the debate around market-based mechanisms for environmental protection.

The discourse on ecological modernization is conventionally made to start in 1987 with the publication of the Report "Our Common Future" of the World Commission on Environment and Development (1987) - chaired by Gro Harlem Brundtland -, which made the concept of "sustainable development" part and parcel of the international agenda on environmental issues. It is fair to say that still into the '70s, the dominant understanding of the relationship between the human beings and their activities, on the one hand, and the environment, on the other, was in terms of conflict, as reflected in the report *Limits to Growth* published in 1972 by the Club of Rome (Meadows *et al*., 1972). With the ecological modernization discourse, a new rhetoric gains ground and eventually subverts the old discourse according to which there are environmental limits to the resources needed to sustain a growing and aging population. The new rhetoric recognizes the multifaceted nature of environmental problems but nonetheless assumes that existing political, economic, and social institutions can internalize care for the environment. In order to do this, however, environmental problems had to become manageable with the instruments known to economists and political scientists: problems such as environmental degradation, biodiversity loss and emission of CO_2 are therefore made measurable and calculable through analysis of costs and benefits. A second and related characteristic of the ecological modernization discourse is that, by internalizing environmental costs into the systems of production, as opposed to environmental taxation or end-of-pipe technologies to contain pollution, environmental protection is portrayed as a "positive-sum game" and obstacles are portrayed as game-theoretic problems of collective action, such as the tragedy of the commons (Hardin, 1968). Using the forests as an example, they are considered as an instrument of low-cost climate mitigation because they have the capacity to store large quantities of CO_2, more than the quantity presently stored in the atmosphere (FAO, 2006: xvii). Moreover, as forests provide multiple services ranging from biological ones - watershed protection - to cultural ones - tourism -, focusing on forests preservation and afforestation projects also allows for synergies maximization. According to the Technical Support Team of the UN in charge of providing background papers for the State representatives participating in the Open Working Group on Sustainable Development (in charge, in the months leading to September 2015, of crafting a list of Sustainable Development Goals), forests are vital to achieve sustainable development.

> "They provide solutions for addressing many development challenges including poverty eradication, environmental sustainability, food security and agriculture, energy, clean water, and watershed protection, biodiversity conservation, mitigation of and adaptation to climate change, combating desertification and forest degradation, and disaster risk reduction" (UN TST, 2014).

The maximization of synergies also lead to win-win solutions that can be achieved when forest projects bring benefits to more than one party; usually both the foreign investor and the local population. This ideally happens when the investor funds a project for some particular reasons - increasing the carbon storage and obtaining carbon

credits for example - while the local population benefits from the project because of, for example, increased watershed protection. *Low-cost carbon storage*, *synergies maximization*, and *win-win solutions* are the catchphrases or story-lines around which the ecological modernization discourse is built. From within the discourse, however, they are achievable aims which provide the justification to further align the management of the forests with economics and politics.

The discourse on civic environmentalism is conventionally made to start with the Rio Conference of 1992. There, the language of participation of the civil society, of all the relevant stakeholders and marginalized groups - women, youth, indigenous people, etc. -, entered the global environmental agenda. The main justification for increased participation is that the groups who are directly affected by environmental problems should, firstly, be informed, and secondly, have a say in how these problems are tackled. Stakeholders' engagement is seen as complementary to the state-centric practices and principally aimed at increasing the legitimacy and the public accountability of the environmental institutions which are already in place. Although civic environmentalism generally distrusts that the market alone can provide equitable solutions to environmental problems, the proponents of this discourse also believe that by directly contributing to policy in institutional settings, they can somehow counterbalance the neoliberal tendencies of more mainstream policies. The inclusion of the so-called Major Groups in UN activities, since the 1992 Earth Summit in Rio, accommodates the logic put forward by the civic environmentalism discourse. Again, using the case of forests as an example, it can be said that the increased focus on indigenous and local populations participation in the management of forest resources is in line with this environmental narrative, as well as the focus on transparency and access to information which is part and parcel of, for example, the REDD system based on pledges and review.

The radical environmentalism discourse has a longer history compared to the other two discourses. Its beginning in Western politics can be traced back to the wave of environmental protests which characterized the period of intense economic development following WWII (e.g. Carson, 1962). This discourse is critical of market-based mechanisms as they are not only seen as ineffective mitigation instruments but as the veritable culprits of environmental degradation, as they bring the allegedly destructive capitalist logic to bear on environmental matters. The discourse is also utterly critical of the promise of stakeholder governance. In particular, its proponents highlight the fact that certain power relations are at the very core of the institutions in charge of protecting the environment and of their negotiation processes - like for example the voting mechanism of the international financial institutions and the composition of the UN's Security Council. These enduring power relations cannot be broken from within by continuing to employ the same institutions. Compensation schemes for investing in forest projects in the Global South are not seen as mutually benefiting deals in which one state invests in another state's forests in exchange for the possibility of earning emission reduction credits; rather, they are perceived as a loophole that, by putting a price on forests and creating a market for them, permits the rich countries to evade their

historical responsibility for the high concentrations of greenhouse gases in the atmosphere.

Each one of the narratives introduced in the previous paragraph has a core storyline which revolves around a broad subject – markets, participation, or de-commodification and degrowth – and each storyline is in turn legitimized by a handful of normative presuppositions – i.e. a theory of why markets or participation or de-growth is good and should be promoted. By unveiling these presuppositions, this research aims to uncover some of the underlying normative forces shaping environmental politics and aims to explain the polarization of the debate around market-based policies, and why the environmental conflicts which arise from them are so complex and difficult to solve.

NARRATIVES AND FRAMES

I have been using the terms "narrative," "discourse," "frame," and "story-lines" rather freely. As a partial excuse to this carelessness, this seems to be a common problem also affecting many towering academic figures in environmental sociology. For example, in an article reflecting on a decade of usage of discourse analysis in environmental politics, Hajer - a veritable pioneer in this academic field (see Hajer, 1995) - together with Wytske Versteeg refer to discourses as "ensembles of ideas, concepts, and categories through which meaning is given to social and physical phenomena" (Hajer and Versteeg, 2006: 175). Later in the same article, the authors quite explicitly use "frame" as a synonym to "discourse" (177); furthermore, they also use the verb "to frame" to hint at what discourses do (180). While they do not make any reference to the "narrative" term, they use "story" and "storylines" to refer to subsets of discourses, yet this is not very well explained. Bäckstrand and Lövbrand (2006) use "narrative" and "discourse" almost interchangeably, they use "story" and "storyline" as the building blocks - or smaller entities - of which narratives are made, and seem to suggest that adopting a storyline is equivalent to framing. Similarly, George Lakoff (2010) makes use of "frame," "discourse," and "narrative," yet he properly defines only one of them - "frame" - whereas the other two are left to the reader to figure out. Dryzek (2013) specifies that a discourse is a "shared way of apprehending the world" (Dryzek, 2013: 9) and then he goes on to explain that its objective is that of putting information together into coherent stories. For Dryzek, then, "story-lines" are a sort of output of the organizing work of discourses, not building blocks which construct discourses. All of these definitions bear a family resemblance as they define discourses, narratives, frames, story, and story-lines as shared understandings of the world, which are always partial and situated. But now that a better understanding of how narratives embed normative presuppositions and what this means for environmental politics is sought, it is better to tidy up the vocabulary.

A narrative always involves some temporal structure. According to a minimal definition of narrative given by Gerald Prince, a "narrative is the representation of *at*

least two real of fictive events or situations in time sequence, neither of which presupposes or entails the other" (Prince, 1982: 4, emphasis in the original). Every time there is a timeline, something that has happened before, something that has happened after or is happening now, and a "because" clause connecting the two, it is possible to refer to this construction as a narrative. Here is an example: population growth (before); deforestation, land degradation, and the advancement of the agricultural frontier (now); an increased demand for agricultural and wood products (because). This is the narrative: population growth is pushing the agricultural frontier forward because there is an increasing demand for wood products and products such as soy, timber, and palm oil. In the environmental politics literature, there is also a second sense in which one could talk about narratives: when the temporal structure is implied by if-then clauses in future scenarios. If we employ a market-based forestry mechanism such as REDD to provide funding to counter the drivers of deforestation, environmental degradation and the agricultural frontier can be pushed back. This, too, is a narrative, albeit in a looser sense.

The definition of "discourse" provided by Hajer and Versteeg is a good starting point to reason about the differences between discourses and narratives. A discourse is "an ensemble of ideas, concepts, and categories through which meaning is given to social and physical phenomena" (Hajer and Versteeg, 2006: 175). Discourses need not have a temporal structure, and although it is likely that some of their concepts and categories will display such a causal and temporal structure, this is not their most salient characteristic. A discourse separates what is normal from what is not: for example, it is quite normal nowadays to refer to a plot of forest in terms of its capacity for CO_2 sequestration; it is not normal anymore to refer to decomposing biomass in the understory of forests as generating toxic effluvia. A discourse, its categories, and its concepts are often used to construct a narrative by providing the material to bridge two unrelated events or scenarios: for example, if REDD mechanisms are portrayed as effective instruments to halt forest degradation, then this narrative implies that looking at forests in terms of their capacity to sequester CO_2 is a valuable instrument to understand problems of environmental degradation and solve them. The discourse of green governmentality identified by Bäckstrand and Lövbrand is, then, truly a discourse as it provides instruments, ideas, and concepts which cross narrative boundaries.

A frame is an unconscious structure which people use to think: it includes semantic roles, concepts, events, relations, both between different roles and between the frame and other frames (Lakoff, 2010: 71). For example, if I say Ph.D. student, supervisor, research, and article, the frame I elicit by uttering those words is that of academia, or higher education, or university. More precisely, this frame specifies also the relations between these roles, and it could do so in the following terms: supervisors help Ph.D. students in their research by correcting and providing feedback about their articles. Other relations are also possible by combining those same roles and concepts. More interesting than the substantive "frame" is the verb "to frame." The verb implies a sort of purposeful agency, i.e. someone doing something with a purpose in mind, i.e. framing something. To frame something is to use specific words referring to roles,

concepts, relations, and events in order to elicit these unconscious structures. Narratives are constructed through the action of framing. Imagine there is a complex problem which can in principle be explained in a number of different ways; when it gets framed, only a handful of events, role, and concepts of the many available are then chosen as relevant to the explanation or solution of the problem.

Finally, a narrative can be a simple or a complex story. If the former, the two concepts of narrative and storyline are coextensive: both refer to a temporal structure linking at least two events or scenarios. If the latter, it means that there are more simple narratives - or story-lines - making up one complex narrative. Some initial thoughts on narratives and framing are in order:

(i) Ecological modernization, civic environmentalism, and radical environmentalism are complex narratives: they are narratives in the less strict sense of the term; each of these narratives is in turn made up of a handful of different story-lines. That being said, it is possible to single out a core story-line for each of the three narratives. For ecological modernization: problems of environmental degradation (now) can be solved with the use of market mechanisms (in the future, but hopefully soon) because economic growth correlates positively and possibly causes environmental protection (because). For civic environmentalism: while markets and market-based mechanisms might well provide environmental protection, they do not provide *equitable* environmental protection (now), therefore mechanisms to increase participation and transparency in governance should be introduced (in the future, but again, hopefully soon) because, by helping in closing what can be called a "participation gap" in environmental institutions, these mechanisms will increase the redistributive measures in favor of those who are negatively affected by market-based environmental protection (because). For radical environmentalism: market-based environmental protection and the process of commodification that goes with it are bad for the environment and the people dependent on it (now); therefore a powerful protest movement aimed at scrapping these mechanisms should be mounted against the "forces of the *status quo*" (in the future, but again, hopefully soon), because otherwise things will continue to worsen (because).

(ii) When I say that narratives are constructed through the process of framing, I am clearly not referring to some Cartesian evil demon who actively plots and thinks of possible ways of framing a problem and building a narrative. Although sometimes this sort of individuals do exist, they are called spin doctors and public opinion consultants. The process is more the result of ideas that circulate in the public space, get picked up by some writers or activists, and then make their way into the common language; from there they snowball into the lives and mode of thinking of an ever larger segment of the population.

(iii) Framing and narrative building always refer to something partial, i.e. to the action - conscious or not - of choosing something and foreground it while discarding something else. Let me take again the issue of environmental degradation and deforestation in tropical countries: it is a complex problem that can be framed in many different ways, i.e. social, political, economic, and environmental. It can be framed as a

consequence of the impact of globalization on poor rural areas; as a problem of economic incentives in a market economy; as a legal issue in terms of inadequate land tenure systems; as a political conundrum because elected politician have to balance expectation for economic growth and protection of the environment; as a shift in cultural values concerning different attitudes towards the environment. Each of these perspectives chooses a different now-problem (a problem of incentives, or of land tenure, or cultural dimensions), chooses a different future-solution, and mediates the two by means of a causal story. The narratives analyzed in the following chapters use one or more of these frames.

FRAMING COMPLEXITY

The question at this point might emerge spontaneously: if the act of framing, as well as the narratives themselves, are always partial and problems touching on different dimensions (political, economic, environmental, social, cultural) are complex, why do politicians, activists, researchers, and concerned people in general frame problems and use narratives? The question is all the more relevant if one considers that different frames lead to conflict and polarizing debates. Using a military metaphor, should not an enemy surrender sooner if it is attacked on multiple fronts? If we look at this from a political perspective, then one reason for reducing complexity into a narrative through the process of framing might be political convenience: to get elected - and reelected -, politicians need clear and simple messages which can be understood and supported by everyone. From an economic perspective, it might be a problem of resources as not all possible policy solutions to tackle a problem can be tested at the same moment. To put in the terms of the metaphor above, there might not be sufficient economic resources to mount an attack on multiple fronts (economic rationale) or it might be too difficult to explain this strategy to our infantry (political rationale).

A more important reason, however, is that often there are genuine and passionately diverging opinions concerning the real cause of a problem and its solutions; furthermore, these can be incommensurable between each other: what is a solution to a problem is often considered the cause of the same problem for someone else. These types of problem are often called “wicked” precisely because they are resistant to resolution and they generate disputes that become intractable (Rittel and Webber, 1973). Finally, a more radical perspective on this point might be to acknowledge that this is just how knowledge works and this is how human beings navigate the social world: not everything can be apprehended at the same time, it would be cognitively impossible, and more or less conscious choices should continuously be made in order to frame and tackle the problems we might be faced with.

The first two responses stress practical and strategic aspects of framing: it might be useful and even necessary to frame problems to have a chance to tackle them in a more convenient way, whether it is politically or economically convenient. The latter two responses point to the fact that partiality and framing are to some extent

inescapable, that complexity is ineliminable and is as much a cause of partial framing of a problem which can never really be apprehended as a whole as is its outcome. If this is the case, then, what narratives do is to negotiate different theoretical aspirations: understanding a problem in its complexity as much as possible while at the same time reducing it into understandable stories and workable hypotheses, theories, or policies.

TWO MATRICES

Efficiency vs. Justice

Analyzing the normative presuppositions behind the environmental narratives is the first step to charting the different positions in the debate about the merits and drawbacks of market-based instruments and to uncover the complexities of these policies, but it cannot be the whole story. This analysis yields a naive picture of the debate, it shows some glaring differences among the narratives, but it does not go deeper in showing why these differences often develop into environmental conflicts which are complex and difficult to solve. In order to bring out the specific traits of each narrative, I will parse the normative presuppositions undergirding the environmental narratives into arguments on grounds of justice and arguments on grounds of efficiency.

I will first show how each narrative displays elements which can be traced back to both normative concerns (i.e. both efficiency and justice), and, second, I will show how the relationship between these two normative elements changes across the three narratives. In particular, I will show how the narrative of ecological modernization attempts to assimilate justice to efficiency; the narrative of civic environmentalism attempts to subsume efficiency under a broader conception of political justice; and radical environmentalism tries to reject both the paradigms of efficiency and political justice in favor of a largely non-anthropocentric conception of justice. "Largely" because, as it will be seen in Chapter 4, radical environmentalism is better described as a set of different, and at times, incompatible, environmental stances.

	Ecological modernization	**Civic environmentalism**	**Radical environmentalism**
Efficiency			
Justice			

Table 1.1 - The first matrix: *efficiency vs. justice*.

A *caveat* on the distinction between efficiency and justice is in order. This distinction is not clear-cut, as ultimately normative assumptions of welfare economics on increasing the wellbeing of the people, which in turn captures important aspects of utilitarian

justice, underpin the pursuit of efficiency. The distinction is, however, usually unproblematic: arguments on grounds of efficiency maintain that a certain policy should be carried out if it produces certain benefits while costing less than other alternative options. These types of argument have an obvious intuitive appeal: if something can be done with less effort, then the remaining resources can be used to achieve something else. On the other side, the notion of justice captures all those normative positions which depart from the idea that the *equality of something* is of paramount importance (Gosepath, 2011): equal respect for property rights (libertarians), equal opportunities to shape one's own life (political liberalism), equal respect for life and life-bearing entities (non-anthropocentrism).

Clashes, continuities, and blind spots

Whereas the first matrix will map the debate by looking at the different normative presuppositions informing the three environmental narratives, we will need another set of concepts and a different matrix to make sense of the importance of these different ways of articulating environmental policy. This second step is all the more important when considering that narratives - as I said above - negotiate different theoretical aspirations: they try to understand a problem in its complexity as much as possible, while at the same time reducing it to understandable stories and workable hypotheses, theories, or policies. They do this not only by framing problems, but also by reframing alternatives, and by contrasting incommensurable alternatives.

By framing problems, narratives reduce a complex problem to a few identifiable elements of a story which has a temporal structure (now/future) and a causal explanation (because). By reframing alternatives, narratives capture some of the complexity being lost through the original process of framing; this is very much a work of translation in which some of the elements of the competing narratives are made to fit the preferred narrative. By reframing and filtering out the normative positions subtending the other narratives, each narrative tries to present itself as an overarching and all-encompassing story. Like many processes of translation, it is not without "costs": a term in a language does not always find its exact translation in another one, and many times the translated term loses its specific meaning when taken out of the context for which it was originally intended. In other words, each narrative, while trying to capture the complexity of a problem, also reduces it in a distinctive way. Finally, the elements of competing narratives - normative presuppositions included - that are truly incompatible with the preferred narrative are either ignored or directly opposed.

	Ecological modernization	**Civic environmentalism**	**Radical environmentalism**
Clashes			
Continuities			
Blind spots			

Table 1.2 - The second matrix: *clashes, continuities, and blind spots*.

Clashes, continuities, and blind spots are, then, the three analytical categories I am going to employ to show how each environmental narrative reduces and interprets the complexity of environmental politics. *Clashes* is the first category I am going to employ in order to highlight the differences among the narratives. This analytical category comes first as it is the implicit focus around which the Chapter 2, 3, and 4 have been built. Sometimes, however, different narratives depart from similar fundamental normative assumptions which are then interpreted in different ways and evolve in a different direction: *continuities* is thus the second category I will employ to analyze these narratives. What I call a *blind spot* is what is lost in translation, i.e. what is clearly considered from within a certain narrative, but sidelined in another after it has been reframed to fit the preferred narrative.

Whereas looking at the environmental narratives and their normative presuppositions might give us indications on how certain policies are already being implicitly justified in the public sphere and on the differences among these justifications, going one step further and analyzing the relationships among the different narratives in terms of clashes, continuities, and blind spots will give us valuable information concerning what makes the debate on the merits and faults of market-based mechanisms in environmental politics endure, i.e. the fundamental points of divergence which keep driving the different positions away from each other, or what might, on closer reflection, drive them together. In other words, through the prism of the two matrices it is possible to acquire a more refined understanding of the various positions currently informing environmental politics and, furthermore, it is possible to make these different positions and traditions in environmental thought “speak” to each other.

CHAPTER II
THE NORMATIVE PRESUPPOSITIONS UNDERLYING THE NARRATIVE OF ECOLOGICAL MODERNIZATION

The narrative of ecological modernization brings to the policy-making table the neoliberal message re-packaged for the purpose of environmental protection. Although there are a myriad of different definitions of what counts as "neoliberal" - mostly because it is impossible to find two identical neoliberal policies with similar results in different places - a certain family resemblance between the different definitions seems to point to the market as the main focus of neoliberal policies. Markets should be allowed to make major social and political decisions (George, 1999: 1); competitive relations of the market should be extended as far as possible, keeping the state intervention to a minimum (Holifield, 2004: 286); neoliberalism entails a utopian vision of market forces completely liberated worldwide with the state ceding its socio-economic and resource-allocating roles to the market (Brenner and Theodore, 2002). If ecological modernization is a disguised neoliberal message for environmental purposes, it follows that some of the arguments usually invoked in order to defend free-market policies and policies that would increase the roles of markets can also be invoked to defend the idea that the environment can be protected through the interplay of market forces, competition, and economic growth.

In this chapter, I present some of these arguments. Sometimes it is possible to disentangle which normative presupposition clearly lies behind a given policy - maybe because the proponent of the policy clearly stated it - but sometimes it is impossible, either because more than one presupposition is present and they reinforce each other - markets are efficient *and* protect individual liberties -, or because faith in the miraculous power of economic growth is rigidly taken as an unquestioned ideology. Moreover, few politicians clearly spell out the normative presuppositions behind their policies, either because they do not know them or because it would not be convenient to do so. It is for this reason that it would not be accurate to say that the narrative of ecological modernization as an ensemble of ideas gravitating around environmental protection is *grounded* on a specific pro-market normative substratum. Instead actors that advance an agenda in line with ecological modernization implicitly or explicitly rely on some of these arguments, and when they do so they explicitly pick and choose those arguments that best boost their position from a rhetorical point of view.

Arguments for unleashing market forces to protect the environment can be grouped under arguments on grounds of efficiency and arguments on grounds of justice. As I said, this distinction is not clear cut, because, for ecological modernization, the

reasons to pursue efficiency are ultimately grounded on the increased well-being people will receive. Most of the time, however, the distinction is largely unproblematic. The waters are indeed more muddied as welfare economics embeds some important utilitarian assumptions; I will flag them when we encounter them. The first part of the chapter will focus on the efficiency arguments informing the narrative of ecological modernization, the second, on the arguments on grounds of justice.

EFFICIENCY ARGUMENTS

Arguments on grounds of efficiency maintain that a policy should be implemented if it produces certain benefits while costing less than other options. These types of argument have an obvious intuitive appeal: if something can be done with less of an effort, then the remaining resources can be used to achieve something else. According to the first theorem of welfare economics, free competitive markets have the capacity to create a surplus and thus make everyone better off up to the point at which no one can be made better off without someone being made worse off. This state of affairs is called Pareto Optimality. A state of a given system is Pareto Optimal if and only if there is no feasible alternative state of that system in which at least one person is better off and no one is worse off. A state S1 is Pareto Superior to another S2, if and only if there is at least one person who is better off in S1 than in S2 and no one is worse off in S1 than in S2. These two Paretian principles are usually seen as the second-best alternative to utilitarianism when it comes to evaluating efficiency: evaluating social states according to the overall utility they produce would be preferable, were it not for the fact that interpersonal utility comparisons cannot be made (Buchanan, 1985). The Paretian principles avoid interpersonal utility comparisons by requiring only that we are able to determine whether each individual is better off or worse off relative to *his own former condition*.

"Leave it to the market," however, is not always a practicable road to effectively bring about a needed change, either because markets sometimes fail or because certain public domains are not open to free private enterprise. Cost-benefit analysis sets out to do for government and international actors - like the World Bank, for example - what the market does for businesses: comparing costs to benefits, to then go with the option which best maximizes the benefits while minimizing the costs. However, for the purpose of policy analysis and regulations, the second-best option, Pareto optimality, is seldom good enough. This is because it is highly unlikely that the introduction of a new large-scale regulation or a social policy will only improve the well-being of a part of the population, while leaving the others untouched. These kinds of policies will produce both winners and losers. As the Pareto criterion is too stringent, a third efficiency test is usually employed by policy makers to evaluate new projects or regulations: the Kaldor-Hicks criterion. According to the Kaldor-Hicks criterion, an outcome is more efficient than an alternative outcome if those who are made better off could, in theory, compensate those who are made worse off so that an actual Pareto improvement could be achieved. This compensation in practice almost never happens; that is why the Pareto

improvement is only potential. The Kaldor-Hicks criterion is the bedrock upon which the cost-benefit analysis procedure to evaluate social policy is rationalized.

Cost-benefit analysis and free markets are the two instruments to bring about efficiency that are most closely associated with the narrative of ecological modernization. The usual catchphrases mentioned in the previous chapter - synergies maximization, win-win solutions, low-cost carbon storage - capture important aspects of the alleged consequences of using these instruments to pursue environmental protection.

I start my review of the arguments associated with ecological modernization from the analysis of the cost-benefit method: after briefly tracing the history of cost-benefit analysis as a method to evaluate policy options, I will review the methodological assumptions of cost-benefit analysis, largely following the work of Kristin Shrader-Frechette (1983, 1998). Much of the criticisms leveled against cost-benefit analysis revolve around those methodological assumptions. When appropriate, I will provide a defense against these criticisms. After that, I turn to the role of markets in bringing about environmental protection. However, before all this, I need to analyze the basic claim upon which the ecological modernization narrative is built upon: that economic growth can be good for the environment. To this I now turn.

Economic Growth and the Environment

From growth to environmental protection

The main message conveyed by the narrative of ecological modernization is that economic growth can be reconciled with, or in some cases is good for, environmental protection, and that environmental protection can be reconciled, or is good for, economic growth: a double win-win. For people like me, born in the late ‘80s, this is not a particularly revolutionary message: the expression “sustainable development” was officially launched in 1987 with the Brundtland Report (World Commission on Environment and Development, 1987), and it did not take long before it became part and parcel of the rhetorical toolbox that every political leader needed to master if she wanted to make an appearance at the international institutions. To older people, the connection between economic growth and environmental protection is felt less like a necessary link and more like an interesting shift of perceptions to be received with skepticism. One could - but need not - go back as far as the first industrial revolution in Britain: the negative effects of Britain’s economic expansion on the environment are well-documented both in the newspapers of the time and by the historical records (Kasa, 2009). Closer to us, one could refer to the spark of environmental protests following the disruptive effects on the environment of the economic boom of the ‘50s and ‘60s in Italy. Beppe Fenoglio, an Italian novelist, famously wrote that the polluted waters of the

river Bormida had the color of coagulated blood and no grass could grow on its banks.[1] The waters of the river were indeed used by the chemical company ACNA, which had a permit from the government to take the waters from the river for its operations and return the waters to it thereafter. Granted that the connection between economic growth and environmental protection is anything but necessary, one might try to be more charitable towards those who find that the link between the two does hold and analyze their arguments. It is true that specific cases of pollution strike the mind of the local population in a negative way - like my example of the river Bormida -, yet one might want to argue that the aggregated effect of economic growth on the environment is, on balance, positive. The claim thus deserves more careful consideration. I start from the analysis of the elements that have an impact on the relationship between economic growth and environmental protection; then I move on to discussing two underlying theories which could explain how such elements might indeed increase environmental protection while enabling the economy to grow.

The scale of production of goods is the first element that links economic growth to environmental impacts. If the production of a certain good grows, there also needs to be a proportional growth in the resources - or input mix - used to manufacture that good, other factors in the production being equal. Quite simply, if to irrigate a field one needs x liters of water, 2x liters are needed to irrigate two of the same fields, provided that the irrigation technology remains the same. The expansion of the production impacts negatively on the environmental resources needed for the production. This basic relationship between resources and economic expansion is at the core of the Malthusian and neo-Malthusian environmental concerns epitomized by the research produced by the Club of Rome (Meadows *et al*., 1972). The output mix of a country-wide economy is a second element that affects the relationship between economic growth and the environment (Janicke *et al*., 1997). The idea is that different development stages are characterized by different output mixes, which in turn have different impacts on the environment. The traditional path to development depicts societies moving from an agricultural to an industrial resource-intensive economy which increases emissions; then, a further stage of development sees the economy shifting again towards a greener, less resource-intensive service sector. A third element is the state of the technology; a technological innovation could help produce more output per unit of polluting input or it could find a substitute for a particularly polluting input. In this case, the total productivity will have lower emission per unit of output, making the production more energy-efficient. Other cultural factors, such as environmental awareness, education, and environmental regulations, while not impacting directly on the relationship between

[1] «Hai mai visto Bormida? Ha l'acqua color sangue raggrumato, perché porta via i rifiuti delle fabbriche di Cengio e sulle rive non cresce più un filo d'erba. Un'acqua più porca e avvelenata, che ti mette freddo nel midollo, specie a vederla di notte sotto la luna». Translation (by me): «Have you ever seen [the river] Bormida? The water, it's the color of coagulated blood, because it takes away the waste of the factories of Cengio [a place nearby] and on its banks no grass can grow. Shit water, and poisoned, it makes you feel cold in the spine, especially when you look at it under the moonlight» (Fenoglio, 1963).

economic growth and environmental protection, have an effect on the technological research which, in turn, affects the relationship under investigation (Stern 2004).

Assuming that it were true that economic growth leads to more environmental protection - by finding substitutes to polluting inputs, by finding more energy-efficient technologies, and by moving the bulk of the economy towards the service sector -, what are the underlying reasons which drive development into this greener direction in the first place? Two different theories could help explain why economic growth might create a demand for a greener economy: the post-materialist theory in environmental sociology (Inglehart, 1977) and the theory of positional goods in economics (Hirsch, 1976). The two theories are not competing and indeed might reinforce each other. According to Ronald Inglehart, the rise of environmental concerns during the second half of the twentieth century is largely due to a shift in cultural values. The generation born after the World War II did not witness economic shortages and physical insecurity during their adolescence, the crucial formative years for one's value system according to Inglehart. As a result, this younger and economically more solid generation is oriented toward satisfying their other, less immediate needs, mostly associated with social bonds, self-esteem, stewardship of the environment and quality of life in general. Inglehart arrived at this conclusion by conducting polls and surveys of citizens in the industrialized countries.[2] A second theory - that of positional goods - which could explain the relationship between economic growth and increased environmental protection sees the increased concern for the depletion of the environment as a response to the decreasing availability of environmental resources and services. The perception of scarcity, congestion, and crowding through extensive use of certain environmental goods, coupled with their desirability by other people, make environmental resources akin to luxury goods. Hence, after a cycle of economic growth through environmental depletion, certain societies reach a point at which they want to preserve the remaining resources. This is a variation on the theme which sees environmentalism as a response to Malthusian concerns.

Whatever the reason behind the claim that economic growth leads to more environmental protection - materialist, post-materialist or both -, starting from the early 1990s a large body of research set out to empirically demonstrate the truthfulness of the claim. In economics, the relationship between economic growth and environmental protection is known as the Environmental Kuznets Curve. It is an inverted-U-shaped curve which roughly describes the changing quality of the environment along different estimates for per capita income. As income grows, there is a first period in which resources are intensively extracted and the environment degrades, after which a turning point sets in such that more income leads to environmental improvement and increased environmental protection. At first simply a hypothesis, it was tested by Gene Grossman and Alan Krueger (1991) in a ground-breaking study which intended to study the impacts on the environment of the opening of markets with Mexico in the context of the

[2] Ronald Inglehart is the founding President of the World Values Survey: a global research project involving a global network of social scientists who conducts national surveys aimed at exploring the different people's value systems, http://www.worldvaluessurvey.org/wvs.jsp (last accessed May 2017).

North America Free Trade Agreement (NAFTA). Whereas politicians in Washington feared that Mexico's adhesion to the trade bloc would invite companies to relocate to where environmental protection is weakest, Grossman and Krueger argued that the rising incomes from trade would ultimately have a positive impact on the environment. They analyzed the data gathered from the Global Environmental Monitoring System (GEMS) - a joint project WHO and UNEP - the objective of which was to improve the monitoring of air quality in urban areas. The data, which tracks air quality in cities around the world and in three different areas of each city (usually city center, suburban, industrial), was then related to estimates of economic growth. The findings of the study provided statistical evidence for a relationship between economic growth and environmental protection which tracks an inverted-U-shaped curve.

Several other studies in the early '90s find a similar relationship for different pollutants and different indicators for economic growth (Shafik and Bandopadhyay, 1992; Hettige *et al*., 1992). As economic growth correlates positively with the quality of institutions, a better understanding of how policy interventions could foster environmental quality also needed to be grounded on how air quality data and several "quality of institutions" variables relate to each other. A series of studies in the late '90s and early 2000 set out to do just that. Theodore Panayatou (1997) explored the relationship between the Global Environmental Monitoring System (GEMS) data pertaining to sulfur dioxide and five different policy variables - enforcement of contracts, efficiency of the bureaucracy, efficacy of the rule of law, corruption, and risk of appropriation. He found that good institutions could help flatten the Environmental Kuznets Curve by reducing environmental degradation at low-income levels and speeding up protection at higher income levels. Along the same lines, Seth Norton (2002) provided a review of the main literature on the topic and found that economic growth, property rights enforcement, and environmental protection are all correlated and reinforce each other: property rights enforcement leads to higher income levels, which in turn generates demand for environmental quality; also, strong institutions could better provide a better context to take legal action against those who generate pollution.

More recently, the early studies on the Environmental Kuznets Curve have come under fire because of their allegedly flimsy statistical foundations and because newer studies on both the same (sulfur dioxide in most cases) and different pollutants do not replicate the same inverted-U relationship between economic growth and environmental quality (Stern, 2004; Gallagher, 2009). In particular, most of the early studies which test the relationship between economic growth and environmental quality, while also trying to include additional explanatory variables intended to model proximate factors - such as the quality of the institutions -, are subject to the problem of potential omitted variable bias. Early studies showed Kuznets curves for local pollutants, while global ones - like CO_2 - increased monotonically with economic growth. These findings, if confirmed, would have demonstrated that local impacts of pollutants are quickly internalized within a single economy, whereas policy-makers do not have the same incentives to regulate pollutants that disperse rapidly in the atmosphere. However, as all

the studies rely on quality of air data collected in urban areas, it is also possible that pollution follows a well-studied pattern of urban development: at the initial stages, a few cities grow quickly and contain much of the modern industry of the country; then, as development continues, urban and industrial development decentralize, concentrations of pollutants decrease in urban areas, while the total emissions of the pollutants continue to increase. Recent studies show that there is little difference between local and global pollutants, as both display a monotonic relation with income (Stern, 2004). The studies that try to prove the Environmental Kuznets Curve are not robust and mostly explain the inverted-U-shaped relationship between *concentrations* of pollutants and income.

Yet somehow, the message that economic growth can function as a panacea for a number of disparate environmental problems has remained the cornerstone of international environmental policy and has made it into the political mainstream. There are obvious merits in combining the two messages - environmental protection and economic growth -, most importantly the ability to align the most economically capable behind the banner of environmental protection. However, if the arguments that underlie the narrative of ecological modernization are received uncritically, one might soon encounter unpalatable conclusions. Indeed, by linking environmental concerns to a level of physical and economic security, one risks concealing the demands for environmental quality by poorer populations. "Are they too poor to be green?", asks Martínez-Alier (1995; 2002) about indigenous people and poor African and South American populations. He makes the point that a further consequence of the body of literature that sees environmentalism as a response to economic growth is that the demands of the poorer populations for environmental quality get redefined and reframed in terms of different types of conflicts: struggles for land, or, for example, for the intellectual property rights of genetically modified seeds.

From environmental protection to growth

The Environmental Kuznets Curve hypothesis sees economic growth as an important cause of greater environmental protection. However, the direction of the "causality arrow" can also be changed: according to the Porter hypothesis, environmental protection and stricter regulations on pollutants can spur economic growth by having a positive impact on the performance of firms (Porter and van der Linde, 1995a, 1995b). This is somewhat different than saying that economic growth, good institutions, and environmental protection are all mutually reinforcing - as Norton (2002) does -, on the assumption that the acquired demand for environmental quality will help create the sort of legal institutions which also positively correlate with economic growth. According to Michael Porter and Claas van der Linde, properly designed environmental regulations might be beneficial to businesses because they push businesses to innovate; in turn, these innovations will have an impact on the profits of the firms to the point of outweighing the costs of complying with environmental regulations. The Porter

hypothesis has thus been divided into different versions thereof, each testing a particular claim made by Porter and van der Linde. The "weak" version of the hypothesis focuses on the first claim and submits that environmental regulations produce innovations, while leaving aside whether such innovations are good or bad for the performance of the firms. A "strong" version of the hypothesis submits that such innovations produce overall net benefits regarding the business performance of firms. The main intuition behind the Porter hypothesis is that pollution is in many cases a sort of inefficiency in the production of a good, "a manifestation of economic waste and involves unnecessary, inefficient or incomplete utilization of resources, or resources not used to generate their highest value" (Porter and van der Linde, 1995b: 105). Since its original publication, the literature on the Porter hypothesis focused both on testing the empirical claims and on providing a theoretical explanation of why environmental regulations might indeed cause better business performance, against the long held, and still popular, belief that any environmental regulation will slow down economic growth.

Porter and van der Linde argued that by putting in place stringent environmental regulation, a state will give the first-mover advantage to its firms, which will be forced to adapt and develop new technologies in order to become green sooner than the competitors elsewhere. This explanation, however, has two related problems, one more serious than the other. The first and more serious is that firms have a first-mover advantage only when a state moved first in passing environmental regulations. If this were the case, then there would be a relationship between the performances of the firms and the *specific time* in which environmental regulations are enacted, and not between the first and environmental regulations *per se*. The second problem is that, if it is true that timing is more important than regulations, then states need to either have a "sense of history," i.e. be able to understand certain pivotal trends in international politics before they happen, or have the strength to impose new trends and discourses upon other international actors. For example, one could read the focus on specific sectors of the internet economy of developed countries as a way of anticipating or constructing important trends of the future. Indeed, while most of the efforts at the level of international governance focus on the so-called Sustainable Development Goals (the successors of the Millennium Development Goals), focusing, in particular, on the eradication of poverty in all its forms - better nutrition, health, education, etc. - and the "greening" of the international economy - phasing out polluting cars, placing cap-and-trade mechanisms or taxes on polluting industries, etc. -, the developed countries in Europe, Japan, and North America are already focusing on one of the next big developments in the international economy, i.e. catering to the needs of an ever-growing

aging population, the so-called silver economy.[3] Regulations that demand that certain smart technologies be installed in old people's homes could spur innovation in the sector and give the first-mover advantage to certain firms which will, in turn, be able to easily enter the markets of those states that in the upcoming decades will witness similar demographic changes.

A further theoretical argument which has been put forward in the literature focuses on the behavior of the managers of firms. As managers are often present-biased, they prefer to postpone investments in innovation; this is because the cost of innovating occurs now, whereas the benefits happen later, maybe in a period in which the manager will have already moved to a different job. Although innovation might be in the interest of the firm, sometimes managers do not have the appropriate incentives to pursue the interest of the firm. However, by requiring certain innovations by regulation, the present-biased managers are forced to overcome their tendency to postpone innovation; and this could ultimately enhance the firm's profit.

There is a large body of empirical research testing each version of the hypothesis separately. The weak version has been analyzed by examining the link between, on the one hand, environmental regulations measured in terms of compliance costs firms have to incur after regulations are enacted and, on the other, research and development expenditures of the firm. For example, a study by Adam Jaffe and Karen Palmer (1997) finds a positive link between pollution abatement costs and total research and development expenditures. It is debatable whether research and development expenditure tracks an extremely plastic concept such as innovation, without at the same time giving it an arbitrary and restrictive meaning. Indeed, it might well be that large research expenditures do not translate into actual innovations. There might be multiple reasons why a firm fails to innovate - for example, it might fail to recruit the best human resources in the industry - notwithstanding large research expenditures. Yet, whereas large R&D expenditures might not suffice to produce innovation, they are necessary most of the time. If this is so, then the body of research that links R&D expenditures to compliance costs shows that there is a positive link between environmental regulations and behavior of firms, which in many cases could be conducive to innovation.

The strong version of the hypothesis is tested by analyzing the performance of firms in terms of productivity after an environmental regulation has been enacted, while leaving the causes unspecified (different performances could be due to innovation or something else). This version of the hypothesis, when tested, yields mixed results. Adam Jaffe *et al*. (1995) in a review article on the topic find that environmental

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[3] The businesses which focus on providing services to the older segment of the population have been around for a while but only relatively recently a common understanding has been developed that this sector of the economy has an enormous growth potential. This is why the Directorate General in charge of developing the digital agenda of the European Commission (DG Connect) in 2014 has sponsored a European-wide coordinated research program focused on studying, developing and creating the right incentives for Small and Medium Enterprises (SMEs) to provide technologies helping the healthy aging of an ever older European population. On this see for example the work of the European Commission on Healthy Ageing, https://ec.europa.eu/eip/ageing/home_en (last accessed April 2017).

regulations have overall a negative impact on the performances of the firm. More recent studies on specific sectors of the economy seem to suggest that environmental regulations might not always be detrimental to productivity. For example, Ebru Alpay *et al*. (2002) find a positive correlation between environmental regulations and the productivity of the Mexican food-processing industry. There is also a study (Lanoie *et al*., 2007) that tests both the weak and strong versions of the hypothesis by building a double regression analysis: the first tests the weak version by correlating the perceived stringency of environmental regulations with innovations in pollution abatement technology; the second correlates the environmental innovations of the first regression with the productivity of firms. Paul Lanoie *et al*. (2007) find that there is a positive correlation between environmental regulations and innovation, thus verifying the weak version of the hypothesis; but they cannot find evidence that environmental regulations have a net positive effect on the productivity of the businesses (strong version). They conclude that the innovations spurred by the enactment of regulation do not counterbalance the negative effects produced by the regulation itself. Yet they also conclude that without the role of innovation, environmental regulation would have been much more costly.

Notwithstanding the incoherent evidence testing the Porter hypothesis, the story that stringent regulations could benefit the economy has found its way into politics. The politician who most readily embraced this angle of the narrative of ecological modernization is Vice-President (under President Clinton) Albert "Al" Gore. To be fair, most of his speeches which draw directly on the Porter literature were made before a proper empirical literature testing Porter and van der Linde's claims reached business journals. In line with the research started by Porter and van der Linde, Gore makes a specific link between environmental protection and innovation benefiting American firms; he claims that taking seriously the option of a bold move toward environmental protection "will demand the kind of determined effort that made the Apollo Program so productive and inspiring." And he adds:

> "the new (environmental) program could reinvigorate our ability to excel at applied as well as basic research, spur gains in productivity, leads to innovations, breakthroughs, and spin off in other fields of enquiry, and reestablish the United States as the world's leader in applied technology" (Gore, cited in Luke, 1999: 132).

The narrative of ecological modernization sees environmental protection closely tied to the pursuit of economic growth by both causing it (Porter hypothesis) and being a consequence of it (Environmental Kuznets Curve). Whether one supports one theory or the other makes a big difference to the policies and regulations to be put forward. It would be a mistake to suggest that the two theories compete against each other on an equal footing: the Porter hypothesis never found its way into the OIRA offices (I will explain the centrality of the Office of Information and Regulatory Affairs (OIRA) in the American politics in the pages below). This can be due to two different reasons: the first is the mixed empirical evidence which does not unequivocally prove the hypothesis; the second is the defeat of Gore - the main and most vocal proponent of revamping the

economy through environmental regulations - at the presidential election against George W. Bush, who campaigned on a different and more traditional understanding of the relationship between economic growth and environmental protection, i.e. as one of conflict.

Cost-benefit analysis

Once it is accepted that economic growth leads to an increase in the quality of the environment, the next step for a responsive green government which has internalized the ecological modernization message is to produce the conditions that will spur economic growth. Cost-benefit analysis, by comparing costs to benefits and by selecting only the options which fare better on the cost-benefit scale, is a method that, if consistently applied, should, in theory, serve the purpose of economic growth. In the context of a book on environmental policy, however, the story does not end here. Cost-benefit analysis is also a decision-making tool to evaluate, rank, and choose different environmental policies. To be able to compare benefits as disparate as clean waters, aesthetic pleasures, and good health to just as many different types of costs, cost-benefit analysts need to make some important assumptions. Some of these are the cause of continuous debate.

What is the relation between the costs and benefits of a given policy and its social acceptability? I began to explain this in the first pages of this chapter, but it is now time to develop this more deeply. An intuitive answer is that measures which rank high on a cost-benefit test could help governments to save money; and as money stands as a proxy for virtually everything (although as we will see, this point is contested as well), choosing a policy that saves money compared to another one will lead to a surplus of money that can also be used to satisfy other desires or implement other policies. The normative force of cost-benefit analysis then falls back on the satisfaction of those desires or preferences. The more preferences are satisfied, the better the social policy. The method of cost-benefit analysis is thus a consequentialist calculus; i.e. a certain policy is to be preferred in virtue of the particular outcome it will have and not because of some intrinsic characteristic of the policy.

A compensating variation is the amount of money a person would need to receive to reach her potential Pareto improvement. Recalling the first pages of this chapter, a potential Pareto improvement is what in theory a policy gainer (someone who has been made better off by a policy) should give to a policy loser to compensate her for acquiescing to the implementation of a policy that, without such compensation, would not have been Pareto efficient. Compensating variations are the basis of the less stringent efficiency criterion devised by Nicholas Kaldor and John Hicks upon which the cost-benefit method is built. I will clarify how it works with an example. If the Ministry of Transports decides to build a new railway a few tens of meters from my property, the nuisance it would cause me in terms of noise and aesthetic damage would make up quite a large negative compensating variation that will need to be weighed

against the positive compensating variation of all the passengers of the train that will arrive to their destination more quickly. The compensating variations are calculated on the basis of how much money I would be willing to accept (WTA) in order to let the railways being built, and how much the passengers would be willing to pay (WTP) in order to have the option of going to their destination quicker thanks to the new railway. In an extremely simplistic manner - because the people directly affected by the railway are not the only ones whose CVs are taken into consideration - if the passengers' positive CVs outweigh the negative CVs of all the individuals whose property will be somehow damaged by the railway, then the railway can be built. Cost-benefit analysis then consists of three main steps: (1) identifying all the costs, benefits (and, sometimes, risks in case of risk-cost-benefit analysis) related to a specific policy; (2) converting those costs, benefits, and risks into economic figures; (3) adding those figures in order to see whether benefits outweigh costs.

Although the concept of cost-benefit dates back at least to an 1844 article by Jules Dupuit (Dupuit, 1844 [1969]), it is in the twentieth century that cost-benefit appraisals really become popular in policy. The United States Army Corps of Engineers (USACE), a U.S. federal agency under the Department of Defense, has used it since 1936 to evaluate waterway infrastructures. However, it is only after World War II, and, in particular, in the President Reagan-era, that cost-benefit analysis was expanded to address all types of government policy, from health to environment, transport, education, etc. By means of the executive order 12,291, President Reagan mandated that all regulations pass the cost-benefit test before being approved. This job of regulatory oversight was assigned to the Office of Information and Regulatory Affairs (OIRA); it is part of the White House's Office of Management and Budget (OMB) and directly reports to the President. A related executive order - 12,498 - requires U.S. regulatory agencies to submit to OIRA their annual regulatory plans to ensure "consistency with the goals of the administration." The two executive orders place the OIRA at the very center of regulatory planning (Pildes and Sunstein, 1995). Although in theory there is nothing that could impede a balanced used of cost-benefit analysis - provided of course that one had previously subscribed to efficiency as a regulatory ideal and welfare economics as the theory to achieve it -, soon after Reagan took office an array of criticisms of cost-benefit analysis as a policy evaluation tool started pouring into the academic literature.

Having campaigned on a deregulation platform, Reagan populated the small OIRA offices with alumni from well-known neoliberal research center and institutions - such as the AEI-Brookings Joint Center, the Mercatus Center, the Cato Institute, and the Harvard Center for Risk Analysis (Ackerman and Heinzerling, 2004: 41). The result was an office biased towards regulatory cost cutting for ideological reasons. But this is not the whole story. Also from a procedural point of view, OIRA guarantees that its task could only be that of curbing the administrative state. By reviewing regulations after a long rule-making process, OIRA could not actively contribute to the drafting of needed regulations, but only to forestall their implementation. This is made all the more likely by the fact that a small staff has to review a large amount of technically complex

regulations, thus causing unnecessary delays.[4] Finally, OIRA's reviews only focus on determining whether or not the benefits outweigh the costs by concentrating on the costs side of the cost-benefit analysis. In other words, OIRA tasks itself on checking whether or not there is a cheaper option to achieve the same result, but it does not conduct research on policies which, by imposing greater costs, would yield even greater benefits. Cost-benefit analysis has thus been used by the OIRA officials as a "one-way racket" to weaken regulation (Bagley and Revesz, 2006).

The cost-benefit method had also been quickly adopted in the development sector by agencies such as UNIDO, OECD, and the World Bank because it offered a seemingly easy and consistent analytical approach to the evaluation of a wide variety of projects. In particular, two aspects of cost-benefit analysis contributed to its adoption in the development sector: first, the fact that it made it possible to compare cost and benefits of a project against counterfactual scenarios; second, it made it possible to take into account distributional impacts of projects by applying variable weights to the calculations (Picciotto, 2007). One would be tempted to relate the surge of cost-benefit analysis in the development sector to the neoliberal framework brought by the so-called Washington Consensus, i.e. a set of economic policies - among which deregulation, financial and trade liberalization - advocated for developing countries by the international financial institutions based in Washington (the IMF and the World Bank) and the US Treasury. The opposite is true. Whereas cost-benefit analysis at the national level has been used as a deregulation "one-way racket," and thus serving the ideology of conservative governments, in the development sector it represented an expert-led and centrally controlled approach to development: economists would carry out project appraisals by calculating the costs and benefits of different possible projects, after which money would be channeled to the project which ranked better.

According to Robert Picciotto, the market fundamentalism wave of the 1980s launched a macroeconomic experiment to connect all developing countries to the global economy; "cost-benefit calculations would still be carried out but their influence waned as policy makers concentrated their attention on the enabling policy framework within which investment projects were embedded" (Picciotto, 2007: 115). The focus thus shifted towards new lending mechanisms, such as structural adjustment loans and sector-wide loans, which had the potential not only to channel money to developing countries but also to create the policy conditions in which development projects would be carried out more effectively. The general backlash following the intrusive conditions imposed on poor countries led in the 1990s to a softening of neoliberal macroeconomic policies; however, this did not produce a comeback of massive cost-benefit project appraisals. As the development agenda of the early 2000s put at center stage the multidimensional concept of poverty eradication, cost-benefit analysis continued to be used alongside other evaluation procedures more focused on specific policy aspects,

[4] This issue was later partially solved under President Clinton by the issue of a new Executive Order (12866) which sets a 90 days limit, i.e. the maximum amount of time OIRA could take in order to review a new regulation.

such as Environmental Impact Assessment, Life Cycle Analysis or Health-Health Analysis.

The use of cost-benefit analysis did not increase compared to the heydays of project appraisals in the 1970s and early 1980s. Moreover, it has been less of a tool to halt regulations under Democratic governments in the US, compared to previous Republican governments; this being said, cost-benefit analysis is still being widely used both nationally and internationally. Not how much cost-benefit analysis is employed, but the extent to which cost-benefit analysis is extended to human domains previously beyond its grip is a novel cause for concern. I turn now to discuss the normative presuppositions of cost-benefit analysis.

What are the contested normative presuppositions of the cost-benefit analysis method which, according to the ecological modernization reading of international environmental policy, made economically computable different interventions on the environment? Unsurprisingly, those presuppositions have as much to do with economics as with ethics. Recall that, in order to make social policy practically possible, cost-benefit analysis is grounded on the Kaldor-Hicks criterion: a policy is efficient if those that are made better off could, in theory, compensate the worse off in order to realize a potential Pareto improvement; in order to do this the CVs of different people are added, the result of which will tell whether the benefits outweigh the costs. Pivotal in this way of evaluating policies is the fact that societal welfare can be measured as an algebraic sum of compensating variations, and, prior to this, that the individual's compensating variation tracks individual welfare (Shrader-Frechette, 1983: 1). The former point represents the utilitarian principle that everyone's happiness or preferences count the same as those of all others, and they are simply added to one another. Social welfare as a simple addition of compensating variation thus ignores the distributional effects of a policy as long as a universal improvement in well-being is realized. Distributional weights that are inversely proportional to levels of well-being (income, health, education) of the affected individuals have been an important addition to standard cost-benefit analysis - they have been used in the past in World Bank project appraisals - and could partially solve its distributional myopia. However, the role of distributional weights is still very much contested because deciding what to weigh is a political decision and because distributional weights would justify avoidable inefficiencies (Harberger, 1978). If a distributional weight of 2 is applied in a cost-benefit analysis to some of the beneficiaries, then some of the projects that previously would not have been approved would now pass the social profitability test as long as their previously unweighted benefits amount to more than half of their costs. In a sense, a waste of up to half of the resources is now acceptable. From the point of view of an egalitarian justice scholar this might seem a fair price to pay in order to improve the conditions of the worst off; however, economically minded scholars are more skeptical of such conclusions and instead argue that redistribution in society should be carried out by the fiscal system only (Hochman and Rodgers, 1969).

Always related to the fact that societal welfare can be measured as an algebraic sum of compensating variations is the claim that by aggregating individual welfare one

can actually get to the welfare of society. In other words, it implicitly excludes the possibility that social welfare is something other than and different to a sum of individual welfares. It is implicitly denied that individuals might subscribe to more than one role in society at the same time by, for example, wanting an aggressive shift from oil energy to renewable energy while also personally considering windmills aesthetically unappealing for the environment and large solar farms dangerous for the birds in the area. In a sense, the fact that by aggregating individual welfare one can get to social welfare downplays some of the intrapersonal struggles that people might have when it comes to options or choices that can have different normative grounds. From a welfare economics perspective, these internal struggles can always be settled by weighing which of the options - that are assumed to be commensurable - satisfies the individual the most.

Concerning the latter point - that individual CVs track individuals' welfare -, two further assumptions need to be realized if it is to be true: (i) that an individual's well-being depends on how she feels and the satisfaction of her preferences; (ii) that such feelings and preferences can be economically measured. The first of these assumptions pertains to the claim that the individual is always the master and best judge of her own welfare. Obviously, often people have preferences that will not lead to an increase in well-being; a standard example is the choice of a marriage partner. Preferences are thus taken at face value on the assumption that most of the time individuals do know what is in their best interest and that their interests are considered normatively laden; i.e. satisfying preferences is good and it should take place. The second assumption concerns the claim that WTP and WTA methods can translate very disparate aspects of human life into prices. The point is that when people are asked through a survey to value a policy intervention based on their WTP/WTA, or when WTP/WTA are inferred from the choices of people in the market, the evaluators implicitly assume that market prices are measures of the value of goods with the consequence of collapsing the fair price of a good - its value - into its market price. Market prices diverge from "fair prices" as they depend on supply and demand, the presence of monopolies, the presence of externalities and scarcity. This, for example, has the consequence that there is no market price - or it is extremely low - for natural resources that are widely available, like air, even though people might give it quite a high value. Related to this, there is a further problem in inferring what people value through WTP/WTA. As people replying to WTP/WTA surveys base their estimates and judgments on their current income or wealth, it follows that the richer segment of the population is believed to value environmental protection more. As these data are collected and used by the administrators to map where to pursue environmental protection and where it is cheaper to install polluting factories, cost-benefit analysis might thus create issues of segregation on the base of income and reinforce patterns of economic and social inequality.

These dynamics can happen both locally between richer and poorer regions within a state, and internationally between richer and poorer states. An example of the latter is the in-famous "Summers memo," a memo on toxic waste and trade liberalization written in 1991 by Lawrence Summers, then Chief Economist of the World Bank, which

was leaked to a Brazilian newspaper by the Brazilian environmental leader, Roberto Smeraldi. [5]

Another controversial presupposition built into cost-benefit analysis is that there is a linear relation between the probability of dying and the value of risk avoidance. In other terms, the bigger the risk, the more important it is to provide a solution to remove such risks (Shrader-Frechette, 1983: 3). It follows from this assumption that more resources should be channeled to make cars safer than to increase the safety of nuclear power plants because many more people die each year as a result of car accidents. This, however, overlooks the fact that people, when directly asked, prefer to give priority to finding a solution to those bad events in life that happen totally outside their control, like, for example, cancer. Whereas undoubtedly man-made, climate change and environmental degradation do have this quality of being perceived as something outside our control. This is because some climate change is now inevitable even if the world population completely stopped emitting CO_2. And lastly, but not less importantly, climate change will hit hardest those poor coastal communities who did not even remotely contribute to climate change. As the impact of climate change will be mostly felt in the future, and as it is difficult to attribute extreme weather events happening right now to it, it follows that climate change cannot be considered *yet* a cause for death; and providing a solution to it is felt as a less urgent matter, even though climate change does display some of the "inescapability" qualities that people look for when they are asked which issues to tackle first.

There is also a more fundamental set of normative presuppositions of cost-benefit analysis that does not have to do with the technicalities of the cost-benefit method, but that calls into question its welfare economics foundations. As a method, cost-benefit analysis is clearly consequentialist - different options are chosen on the basis of their likely outcome -; hence, it is in theory possible to bargain away rights and duties in order to satisfy preferences. Defenders of cost-benefit analysis obviously do not see the problem of this consequentialist implication. Moreover, there is in principle nothing that might impede an evaluator to maximize the benefits intended as a particular set of rights, thus accommodating a more deontology-friendly normative framework, or to include distributional weights to take into account income inequalities, thus accommodating a more Rawlsian distributive scheme. In other words, one could "cost" inequality, or environmental degradation, or concerns, in general, for distributive issues.

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[5] The following is an excerpt: "The measurement of the costs of health impairing pollution depend on the foregone earnings from increased morbidity and mortality. From this point of view, a given amount of health impairing pollution should be done in the country with the lowest cost, which will be the country with the lowest wages. I think the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that." Available at http://www.whirledbank.org/ourwords/summers.html (last accessed April 2017). To this, a response addressed directly to Summers by Brazil's then-Secretary of the Environment José Lutzenburger followed: "Your reasoning is perfectly logical but totally insane. Your thoughts provide a concrete example of the unbelievable alienation, reductionist thinking, social ruthlessness and the arrogant ignorance of many conventional "economists" concerning the world we live in." Available at the url above.

We will see later, in Chapter 5, what are the positive and negative aspects of this standard reply to the critics of cost-benefit analysis.

A distinction must be made at this point, however. On the one hand, cost-benefit analysis is portrayed as a mere technique that maximizes whatever good, value, or right the evaluator is interested in; on the other, cost-benefit analysis as a method is seldom considered in isolation from its underlying utilitarian and welfare economics roots. And whereas there is in the academic literature the understanding that, in theory, the cost-benefit technique could accommodate several normative frameworks, in reality cost-benefit analysts mostly follow the dominant utilitarian and welfare economics *interpretation* of the technique (Shrader-Frechette, 1998: 512).

For example, in evaluating projects that will have an impact 100 years from now, evaluators have to calculate the present value of the benefits that will accrue within 100 years. As money does not have the same value at different times and people usually prefer to hold the same amount of money in their hand now than at a future time, cost-benefit analysts are used to applying a discount rate to their calculations. In these cases, cost-benefit analysts apply the usual interest rate on money as a discount rate. If by putting money into a bank I get 2% more on that amount within one year, then 2% is the discount rate to apply if I need to know the present value which that money will have within one year. However, as shown by the debate that followed the publication of the Stern Report (Stern & Great Britain Treasury, 2006), the choice of the discount rate is an extremely value-laden decision. It is not only that people prefer money now - what is usually called time discounting or pure time preference -, but also the fact that, as the global economy is projected to grow, current generations are worse off in this operation of intergenerational redistribution of resources through project funding. In the calculus of the discount rate, a growth estimate is coupled with an estimate for inequality aversion, i.e. how much redistribution towards us, i.e. the poorer generation, we should be willing to accept. Setting a high discount figure by looking at the market rates - and by so doing setting a high pure time preference - has the unpalatable consequence of discounting the well-being that comes later in time simply because it comes later in time, as if dying young were less of a bad event in 100 years compared to now (Broome, 2007; IPCC, 2014 [AR5]: WG3, Ch. 3). Whereas cost-benefit analysis is open to inputs coming from disparate ethical theories - e.g. by choosing a very low discount rate -, the accepted standard for calculating discount rates is to look at interest rates for savings on the market. This method is believed to be "more democratic" as - according to Martin Weitzman (2007) - cost-benefit analysts do not need to rely on the subjective normative framework of the philosopher-king.[6] The "more democratic" solution put forward by Weitzman, however, takes the satisfaction of preferences as the ultimate normative ground, and this one, too, needs be justified somehow. By labeling this process as "more democratic," or sometimes "value-free," one actively hinders an

[6] Here I referred to the issue of discounting and to the debate following the Stern Review to show the mismatch between what cost-benefit analysis could, in theory, accommodate and the received standard approach of doing cost-benefit analysis.

honest discussion about the normative groundings of cost-benefit analysis, and merely passively accepts its standard utilitarian foundations.

Cost-benefit analysis, scarce resources, and risks

After having reviewed the most important normative presuppositions built into the cost-benefit analysis method, and before turning to another instrument of efficiency - the market -, I need to spend some time on two further arguments usually invoked to defend cost-benefit analysis from the critics who pinpoint the arguments reviewed above in order to argue for its disposal: (i) it is the best method we have in a world of scarce and finite resources; (ii) it is the best method we have in a world full of risks.

Concerning the former defense of cost-benefit analysis, Robert Frank argues that thinking that two disparate options such as the benefits of preventing a number of deaths by placing a guardrail on a dangerous road and the cost of placing the safety measure are incommensurable, and that the guardrail should be installed no matter what, "hinders clear thinking about difficult trade-offs" (Frank, 2000: 914). In a world of finite resources, the money spent to install the guardrail and save lives cannot be spent in order prevent other injuries, perhaps even larger in number, in another policy domain. The rights of everyone cannot all be protected and difficult choices must be made. If decision makers do not make these choices explicitly, they will be made for them by the sheer fact that there will not be enough money for every worthy social policy they might wish to see implemented. The critic of cost-benefit analysis is thus depicted as someone who means well but is unable to deal with the difficult choices which make up day-to-day politics. Bjørn Lomborg, famous for having written the widely discussed book, *The Skeptical Environmentalist* (Lomborg, 2001), and for his positions on climate change, argues in a similar fashion.[7] He is a strong supporter of welfare economics and cost-benefit analysis. In a blog post in which he "plugs" a paper on the UN's proposed Sustainable Development Goals by his own think-tank - the Copenhagen Consensus Center, which provides policy papers on environmental and humanitarian issues from the point of view of welfare economics -, he emphatically asserts that ending malnutrition is not a goal worth pursuing, given our economic resources:

> "The UN draft says that we should "end malnutrition," and the economists warn that while such an absolute goal sounds alluring, it is likely both implausibly optimistic and inefficient. We cannot achieve it, and even if we could, the resources to help the last hungry person would be much better spent elsewhere" (Lomborg, 2014).

The argument of those who support cost-benefit analysis on the basis that it is our only method in a world of scarce economic resources misrepresents, however, the concerns

[7] Lomborg's position on climate change is that the phenomenon is real and man-made, but also that the scarce economic resources available to governments should be used on other problems, waiting for more research on more cost-effective solutions to tackle climate change (Elmhirst, 2010).

of the critics of the cost-benefit method. Their request is that cost-benefit analysis should be given a role as a co-protagonist and not that of the only and undisputed protagonist; that decision-making be a more choral show. Putting metaphor aside, they request that cost-benefit analysis should be used to decide between policy interventions that have already been chosen through other methods - referendum, group deliberations - and on different normative grounds. However, to a certain extent, some of these "different normative grounds" are always being employed, simply because some deontological judgment is necessary before beginning the weighing among alternatives. When a cost-benefit analysis is required to decide between a nuclear and a solar power plant to produce energy, a coal power plant is excluded from the weighing on grounds which have nothing to do with costs and benefits. Without these implicit deontological judgments, the cost-benefit exercise would be potentially infinite (Shrader-Frechette, 1998: 510).

Concerning the latter defense of cost-benefit analysis, Cass Sunstein compares cost-benefit analysis to the precautionary principle - as both represent ways of "organizing environmental protection" - and contends that, although problematic for a number of reasons, cost-benefit analysis at least gives some guidance to decision makers who, without some sense of cost and benefits, will be making "a stab in the dark" (Sunstein, 2005: 354). The precautionary principle is, according to Sunstein, an incoherent approach to environmental protection as it cannot distinguish which risks are worth taking and which not. This argument is an old hit of Sunstein (Sunstein, 2002, 2003, 2005). The point is that as risks might well be on both sides of a certain policy intervention - both a new regulation and refraining from implementing a new regulation might increase some risks -, the principle becomes void and inapplicable. If we need some guidance as to which risks are worth taking, then cost-benefit analysis must be the way to go. Sunstein trivializes, however, the theoretical and ethical underpinnings of the precautionary principle. The mere choice of discussing the precautionary principle alongside cost-benefit analysis, because both can be used to "organize environmental protection," is telling of a general misunderstanding of the precautionary principle.

According to Sunstein, justifications of the precautionary principle rest on our inability to deal with classical statistical problems. He reviews the literature on psychological biases and argues that decision makers who wish to apply the precautionary principle to environmental policy are influenced by those biases: they are, for example, loss averse, they perceive nature as an intrinsically benevolent and harmonious entity, and they tend to overestimate the probability of harm. However, the precautionary principle can also be viewed - and perhaps more fittingly - as a response to the "ethical turn" put forward by Hans Jonas (1985). In this context, the precautionary principle represents a heuristic of fear vis-à-vis the rather new possibility that human beings, and their technologies, could destroy the earth. Translated into the literature more akin to the one covered by Sunstein, the precautionary principle is best understood as insurance against the possibility of black swans (Taleb, 2008), and not a risk management tool to overcome our difficulties in dealing with statistical distribution in situations in which we do know the probabilities attached to the particular events

(Origgi, 2014). In a way, Sunstein's conclusion still stands, although for different reasons. The precautionary principle cannot be used to decide whether to build a new nuclear plant or to install a guardrail on a dangerous road because regulating these issues involves dealing with known risks: the precautionary principle was never meant to serve that purpose. Indeed, the cost-benefit analysis might well be the only method in a world full of *known* risks, but Sunstein argues for it by constructing a straw man.

The role of the markets and market-based mechanisms

Earlier in this chapter I anticipated some of the topics that will now be more thoroughly explored. In particular, I anticipated that when markets meet certain conditions, they produce a Pareto efficient state of affairs. How does this happen and what does it mean for environmental policy focused on efficiency? By describing the behavior of idealized buyers and sellers in response to a number of situations, microeconomic theory summarizes how much buyers in the aggregate will buy of a good at a given market price and how much sellers are willing to produce of a certain good at a given price.

In a standard supply-demand model, lower prices lead to larger quantities demanded; as the price of a good increases, so does the quantity sellers are willing to supply. The combination of quantity and price for which demand equals supply is called the market equilibrium. As long as certain underlying factors that drive supply and demand remain unchanged - people's income and tastes, technology and production costs - the market will gravitate around the equilibrium point. Markets are efficient when they maximize the total surplus, and this happens at the equilibrium point. Buyers buy goods at a price which is inferior or equal to what they would be willing to pay for the same good (marginal willingness to pay), while suppliers are able to produce the goods and sell them for a profit, and they usually do this up to point at which the cost of producing one more unit of the good is less than the good's price on the market. By competing against one another, firms that produce the same good will try to win over the buyers by offering them cheaper goods. They are able to do this, for example, by developing a newer technology which reduces certain production costs, like less packaging for products. By placing resources in the hands of producers who most closely approximate the least costly methods of production, markets increase the size of the economic pie.

So far so good. But when politicians or negotiators say that the solution of environmental problems should be left to the markets and their efficiency-producing mechanisms, what, precisely, do they mean by this? Either one of two different claims: (i) markets are clean when they function properly; (ii) environmental problems are a necessary albeit temporary evil on the road to economic growth. We have already reviewed the latter claim in the opening pages of this chapter. Its foundations are shaky at best, but this does not impede policy makers from continuing to resort to it. Yet the real force of the ecological modernization reading of environmental problems rests on (i): that markets are fundamentally clean mechanisms. Indeed, environmental problems

are portrayed as either a consequence of the lack of a market in environmental products or as a consequence of a market in environmental products that does not work properly. By resorting to either one of the two, it is always possible to both explain and solve problems of environmental degradation.

When a market does not exist...

When a market for environmental products does not exist, economic theory explains environmental degradation as the result of self-interested actions of individuals, each one doing their own business. Garrett Hardin's tragedy of the commons (1968) is now a classic essay in the field; it is used to explain several environmental problems, from overgrazing to pollution and road congestion. When a pool of common resources is open to all, rational and self-interested individuals use the resources for their gain with no regards for the others. This, in turn, leads to overexploiting the resources to the detriment of all. The problem of the overexploitation of the commons has been restricted by Elinor Ostrom (1999) to the *global* commons on the ground that local communities often do find a way to sustainably exploit a pool of common resources; this happens when the livelihoods of these communities directly depend on the common pool of resources and when each individual in the community shares an image of how the resource system operates and how everybody's actions affect it.

The literature usually recognizes that the tragedies of the commons can be overcome in two possible ways: either by creating institutions which force cooperation between the actors in prisoner's dilemma situations - e.g. allowing only cars with odd number plates in the city center on certain days to prevent dangerous level of urban pollution - or by better defining and, if necessary, creating property rights. Needless to say, given a general distrust for centralized mechanisms of command-and-control, an ecological modernization reading of the tragedies of the commons would favor a solution which sees the division of the commons into lots to be sold to the highest bidders. People care about what they privately own and, so the theory goes, they will manage the resources sensibly if their exploitation depends solely on them. This is also the reason why no one litters in her own garden.

When it comes to land, privatizing it is mostly a problem of political will: a common field can be divided and sold. When it comes to air, the problem is mostly technical. Air moves around and it is not possible to impede that someone breathes someone else's air. Even if slots of air could be allocated, it would be impossible to protect the usual rights attached to the enjoyment of property. Environmental depletion is not, however, confined only to land, water, and air. Similarly to air, also the protection of wildlife species, and biodiversity in general, through privatization is technically difficult; yet there are scholars who propose just that. Species can be privatized by attaching property rights to their genes, while wild animals once sold could be tracked with radio collars and satellite technology (Anderson and Leal, 1991). These ideas follow coherently from the theory that at the root of all environmental problems stands

the failure of governments to clearly specify property rights. Yet, for a number of reasons, they are not taken seriously outsides the circles of US-based right-wing think-tanks, even among those who share the ecological modernization worldview: markets in wildlife species might not turn out to work well - and sometimes this happens even when property rights are well-specified; and people might have a certain reluctance to privatize charismatic wild animals, often considered the very symbols of freedom for different people.

It is thus generally accepted that not everything can be privatized. In this case, the recipe to solve environmental degradation is to try to find a way to market some of these environmental products nonetheless. Behind the idea of the cap-and-trade mechanism, like the European Union Emission Trading Scheme (EU-ETS), stands a government-managed market by which polluters for whom it is easy and cheap to reduce emissions will cut back rather than pay for pollution rights, whereas polluters for whom emissions reduction is expensive will purchase rights to pollute. In this way, the level of reduction will be achieved in the most cost-effective way. The European trading scheme for carbon dioxide emissions is not the only one. In the US, a scheme is in place to trade sulfur emissions from coal-burning power plants; the 1987 Montreal Protocol allowed the trading of quotas for the emission of chlorofluorocarbons (CFCs); and also New Zealand and New South Wales (Australia) have government-managed trading schemes. Somehow similar to trading is the offsetting of carbon emissions. Instead of buying and selling pollution rights, emission offsetting enables companies to trade a reduction action in exchange for a pollution right which has an equivalent value. The Clean Development Mechanism (CDM) is a system by which companies that invest in green projects in the South are awarded credits that will count towards meeting the CO_2 targets of the Kyoto protocol in the home state. This system is often referred to as a "flexibility mechanism" because it gives companies the ability to pursue CO_2 reductions where it is cheaper to do so.

Afforestation and reforestation projects are offsetting mechanisms, and as such some of them have also been included in the CDM. These types of projects came immediately under attack after their inclusion in the Kyoto Protocol because they would allegedly sponsor a new form of colonialism: carbon colonialism - sometimes also written "CO2lonialism" (Bachram, 2004). According to the critics of these UN-sponsored projects, by funding projects in the South, northern-based firms will pay a relatively small amount of money to continue to pollute, and by so doing they will avoid more ambitious plans to cut back CO_2 emissions at home. The critics of CDM forestry projects mount a moral case against inequality. The territories in the South are used as carbon sinks - or, in a more colorful way, carbon dumps - and thus cannot be used in alternative ways; this *de facto* limits the range of actions developing countries can pursue on their way to growth. On the other hand, developed countries are guaranteed to receive an easy and cheap way out to continue with business as usual. Scholars working within the Marxist tradition claim that these projects are simply yet another instrument by which the logic of capitalism - i.e. constant expansion of opportunities for capital accumulation - can continue unfolding: the new carbon commodities will enhance the

opportunities for capital accumulation by some as opposed to others (Bohm *et al*., 2012). The accusation of carbon colonialism is specifically pertinent in the case of forest plantation and somewhat different than the accusation that is directed towards carbon markets in general. Indeed, for reforestation and afforestation, the additionality of the projects is not contested; what is contested are the economic and environmental effects of large plantations - sometimes large non-indigenous monocultures. I will return on some of these issues in Chapter 4 when surveying the arguments against the commodification of nature.

The accusations against carbon markets in general move on two different grounds: (i) on the one hand, CDM projects might fail to cut CO_2 emissions; (ii) on the other hand, the critics mount a moral case against CDM projects by saying that one does not discharge one's moral duty by paying someone else to discharge hers. Concerning the first point, the issue is mostly epistemological, i.e. it is not that carbon markets *per se always* fail to reduce CO_2; rather, that sometimes they do, and it is difficult to know when. Indeed, in order to be a verified CDM project and to be credited the certified emission reductions (CER) that will count towards meeting the CO_2 targets, a quite strict and long process of monitoring and independent verification needs to take place, including baseline setting and additionality testing. Briefly, to get credit, one needs to show that the project was not already in the "pipeline," i.e. part of the established development plan of the host developing country. This means dealing with difficult counterfactuals, especially because the host country has an interest in hiding its original development plan in case an opening for additional resources is provided by the CDM fund, precisely as happened in India.[8] Furthermore, even if it could be shown that the projects are truly additional, there are still some situations which give rise to concerns whether the overall environmental impact is positive. As Tamra Gilbertson (2009) showed, CDM projects can have quite dramatic impacts on the livelihood of people who were completely sustainable before the project, even though the project is additional. She studies the case of a CDM biomass power generation project in Thailand which burns rice husk as renewable fuel. Prior to the biomass plant, local peasants before the biomass plant used the rice husk as a natural fertilizer and to manufacture bricks; however, now that bigger profits can be made by burning it, rice husk has become a commodity no longer available to local peasants, or in any case it is not economically rational for them to buy it anymore. Accordingly, they have to resort to chemical fertilizers, which are more expensive and the production and use of it are shown to contribute to climate change.[9]

Concerning the second point - the moral case against carbon markets - the debate is still very lively. At the heart of the positions of the CDM critics stands the rejection of

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[8] A cable released by Wikileaks clearly shows and explains why certain CDM projects do not depend on CDM funding and are therefore not additional, https://wikileaks.org/cable/2008/07/08MUMBAI340.html (last accessed May 2017), sent by the American Consulate in Mumbai.

[9] On this see for example the webpage of the EPA on Nitrous Oxide Emissions, https://www.epa.gov/ghgemissions/overview-greenhouse-gases (last accessed May 2017)

the utilitarian idea that an act be judged only by its consequences: if overall carbon emissions are eventually the same, then emitting and offsetting and no emitting at all are two equal options. But this cannot be the whole story, say the critics of carbon markets, as we should also judge these mechanisms based on rights and duties. Additionally, if one wants to follow the utilitarian idea to its logical consequences, one must conclude that there is no reason to attach the offsetting to the discharging of CO_2; better still would be not to emit CO_2 *and* to fund clean projects in the South. This debate has been exhaustively surveyed by Edward Page (2013). On a more empirical note, even if numerically emitting and offsetting and no emitting at all can be considered equal options, the carbon stored underground is considered safer and more stable than the one stored in trees, as logging and other agricultural activities could always quickly release dangerous quantities of carbon into the atmosphere.

When a market already exists...

When a market for environmental products does exist, economic theory explains environmental degradation as a failure to properly price a certain product or service. A car manufacturer focused on selling a product that is cheaper than its competitors, if regulations allow it, might be induced, when deciding about how many cars will be produced, to consider only its own costs and ignore the damages caused by its pollution. This is the problem of negative externalities. In these cases, markets fail when the actions of one individual or a firm have a direct, unintentional, and uncompensated effect on the well-being of other individuals or the profits of other firms. Most economic textbooks focus on the three words "direct," "unintentional," and "uncompensated." An important insight, however, is that an externality is produced only when well-being is affected. And well-being is affected only when something is perceived as a problem. In this sense, it is only when pollution, or the erosion of the soil or similar cases of environmental degradation, are constructed as a problem that markets start to fail. This point is well captured by Arnold Marsh, who in 1947 writes:

> "To millions of our town-dwellers smoke is just what comes out of the chimney, as coal is just what goes on the fire. The idea that smoke is a "problem," something to be prevented, simply does not exist" (Marsh, 1947).

It is not just smoke coming from coal-burning power plants; asbestos, lead, CFCs were once not only considered innocuous, but sometimes even beneficial. In the nineteenth century, British people believed that pollution came from natural and biological processes. Diseases were caused by miasma - they believed -, an invisible gas produced by decaying plant and animal matter. Thus, places rich in decomposing biomass were also the most polluted; smoke was considered instead a powerful disinfectant of such fumes. These beliefs started to change when physicians began to blame smoke for a wide array of respiratory diseases, and the new science of bacteriology did away with

the notion of miasma (Thorsheim, 2006). Every time the notion of well-being receives a new content, because of new advances in technology and science or simply of new ways of experiencing the world around us, markets will find new ways of failing, or, more rarely, stopping to fail.

When markets fail because of negative externalities, responsive governments try to find a way to correct the pricing of products so that the negative externalities get internalized in the final price. An obvious candidate is a Pigouvian tax: a corrective tax on the polluters, which introduces a gap between supply and demand and forces the producers and consumers of polluting goods to incorporate the full costs of their action into their output and consumption decisions. The congestion charge in London introduced by Mayor Ken Livingstone in 2003 is one of such taxes. A tax levied on goods helps internalize pollution by getting the price of polluting goods right; a different way to achieve a similar result is to focus on the amount of pollution a government would like to see reduced. A cap-and-trade system does precisely that. Apart from being a mechanism that opens a market for newly created property rights (rights to pollution), it is a system that could help internalize externalities produced in a wide array of industries. The two systems of internalizing externalities differ, however, in that under a cap-and-trade mechanism the amount of reduction is fixed by the cap, whereas with a tax the amount of reduction varies with the marginal cost of production of a firm. Regulators prefer to use a cap-and-trade mechanism when a rise in pollution produces a sharp increase in damages from pollution: in this case, it is better to ensure that a certain reduction is met. When there is not such urgency, because each reduction brings more or less the same benefit, a simple tax that does not fix beforehand a precise quantity of reduction might be preferable and might give more flexibility to the polluting firms.

Market, efficiency, and a clean environment

Having explained how well-functioning markets and market-based mechanisms can help the cause of environmental protection by pursuing efficiency, we can now go back to the question posed a few pages ago: what do politicians mean when they say that the solution of environmental problems should be left to the markets and their efficiency-producing mechanisms? Efficient markets are markets in which both consumers and producers profit from their interaction. The consumer buys at a price which is equal or inferior to her willingness to pay; the producers sells at a price which is superior to the cost of production. Markets that function well are also markets in which externalities are internalized. By defining pollution and environmental degradation in general as externalities, well-functioning markets by definition do not produce pollution.

Is this what is meant by the proponents of market mechanisms when they say that markets should be allowed to work freely? Only partially. “Efficiency” and “efficient” are words that have been used and continue to be used so much, and in so many different academic and policy circles, that once they are “out there” they have a life on

their own. For example, a market-based mechanism such as cap-and-trade is said to be an efficient instrument to reduce CO_2 because it allows firms to decide whether or not to cut emissions, depending on their ability to do so cheaply. However, the fact that a certain quantity of reduction is achieved in the most efficient way does not mean that the whole operation of reducing CO_2 is cost-effective from the point of view of the economy as a whole. This is, for example, the position adopted conservative politicians in the United States Congress following the election of President Obama in 2008. Cap-and-trade instruments were reframed in terms of "cap-and-tax"; the point here is that, even though cap-and-trade might be a good instrument to reduce CO_2, it is reducing CO_2 *per se* that is seen as a dangerous political choice that would put the USA at a disadvantage compared to other world economies, hence the choice of not joining the Kyoto Protocol.

Following this vein, the proponents of environmental protection through markets need to argue that not government-managed markets but rather free unregulated markets are the true recipe for environmental protection, hence the truly "efficient" path to follow. Their position is that if people are really concerned about the environment, this concern will be reflected in the choices of consumers and, consequently, in the choices of producers. Alternatively, if people are concerned about the environment, yet this concern is not translated into greener products or fewer products produced with polluting technology, then these people can either sue the polluting companies, asking them for compensation in exchange for the pollution released, or offer them a compensation in exchange for not polluting, depending on which side has the relevant property rights. According to Ronald Coase, in either case a Pareto efficient outcome will unfold, provided that transaction costs are low enough (Coase, 1960). However, if transaction costs are not low enough and cannot be further lowered, then government regulation is needed, such as a cap-and-trade mechanism. Thus, even the most determined proponent of free unregulated markets must, in some cases, come full circle and be willing to accept some form of government intervention.

The very definition of a competitive free market, together with the framing of pollution and environmental degradation as externalities, thus exclude that the latter be a consequence of the former. Certainly, markets, market-based mechanisms, and regulations based on cost-benefit analysis have unpalatable consequences at times: the displacement of poorer people to areas next to polluting industries because richer people are willing to pay more for environmental quality; urgent action against climate change gets postponed because the benefits that come later in time are valued less. These, too, can be justified from a welfarist perspective: if environmental amenities are located next to those who are willing to pay more for them, then the overall utility will be maximized; and benefits happening later in time are valued less because, among other things, future generations will be richer.

Given the all-encompassing nature of economic theory, those who want to argue against the claim that markets can have a positive effect on environmental protection question the normative presuppositions subtending the ecological modernization narrative on totally different grounds: moral, empirical, and discursive. This issues will

come back in later chapters, and mostly in the last chapter, but let me anticipate some ideas at this stage of the argument.

The first one - the moral ground - is precisely the debate outlined few lines above, namely, the normative framework one chooses. The critics of markets, market-based mechanisms, and environmental evaluation through cost-benefit analysis argue that even if it were true that environmental markets could maximize environmental protection, this would not justify the number of injustices that an environmental policy focused on efficiency would produce: these are the unpalatable consequences that are tolerated within the welfarist framework as they would maximize preferences at the societal level, but that are resolutely rejected from the point of view of other normative frameworks. Accordingly, they not only contest the welfare economics underpinnings of the market instruments but they also distance themselves from the other normative arguments that might justify market mechanisms in environmental politics. I will illustrate those below in the context of the justice arguments.

Concerning the second, empirical ground, the critics argue that the idealized conditions for markets to work efficiently almost never hold - transaction costs are not zero, full information is not available, individuals are not rational, etc. Thus, markets are doomed to fail, and environmental markets are no different; and if they fail, then also the environmental protection that was to be afforded by their efficient working will necessarily fail. The proponents of arguments that defend markets on ground of efficiency have one final ace up their sleeves, in response to this critique: there is a reasonable presumption that an actual market system - even though it might produce externalities, transaction costs are high, etc. - is better at producing efficiency than doing away with a market system altogether. Allen Buchanan calls this the "some theory is better than no theory" argument (Buchanan 1985: 44) and he explains it in the following way: if one needs to fire a cannon at a distant target, and this person only had an elementary physics course which includes a theory of the trajectory of an ideal projectile, then she is better off following this theory than no theory at all if she want to at least have a shot at hitting the target, even though the cannon ball is not a point mass like the ideal projectile (it has extension), and its trajectory will not be traverse a vacuum but will go through air.

In a similar manner, even though the conditions for markets to work efficiently most of the time do not hold, one is still better off following them *if* her aim is to enlarge the economic pie. One should probably ask whether the main aim of states is to grow the national economy (different theories in international relations frame the role of the state differently, in terms of power, national interests, security, etc., and a solid economy is a salient element in all of them). But without entering the complexities of a debate on the role of the state in the international community, this quote from Richard Darman - director of the OMB under President Bush Sr. - brilliantly captures where priorities stand when it comes to environmental protection compared to the economy: "Americans did not fight and win the wars of the twentieth century to make the world safe for green vegetables" (Wade, 1990). The world is changing rapidly, but it is probably safe to assume that even though environmental issues are getting more and

more recognition compared to two decades ago, macroeconomic issues such as inflation and deflation, unemployment, monetary policies, trade, just to list a few, still rank higher. If we are doomed for the time being to piggyback environmental protection on economic growth, because the latter ranks higher than the former among national priorities, then the "some theory is better than no theory" objection has some bite.

Concerning the third, discursive ground, critics contend that proponents both of the market and of cost-benefit analysis presuppose a particular idealized understanding of human being and its relationships (*homo oeconomicus*). People acting in the market are thus portrayed as narrowly self-interested and rational individuals always focused on maximizing their utility. *Homo oeconomicus* is probably the most contested concept of economic theory; this idealization has been criticized on both theoretical and empirical grounds. Discussing these criticisms would lead me away from my focus, yet some of these issues will come back in later chapters. Indeed, critics of the ecological modernization worldview would like to see a reduced role for market mechanisms - or no role at all - because of what they believe markets do to people. Implicit in their argument is that *homo eoconomicus* is not only an idealization of the human being difficult to live up to but also a prescriptive notion which sponsors a competitive understanding of the relationship among humans and between them and the environment that is ultimately damaging for both. But this, too, perhaps not surprisingly, is a contested claim. The idea here is that by viewing the environment as a resource to be managed according to the economic rationale, and by putting a price on units of pollution, policy makers fail to moralize pollution - i.e. to give a moral dimension to it; in other words, to construct the act of polluting and degrading the environment as moral failures.

In particular, scholars following the early work of Bruno Frey (1992, 1997) on market incentives and environmental valuation point out that attaching economic incentives to environmental protection might in the long run have the effect of corroding the initial non-economic motivation to protect the environment (Dobson, 2003; Bazin *et al*., 2004). More specifically, market-based and offsetting mechanisms create two distortions. The first is that they make economic actors believe that the amount of pollution in place, once all the actors have met their reduction targets, is normatively acceptable; the second, that they make economic actors believe that additional actions to protect the environment are supererogatory (as the amount of pollution normatively acceptable had been already met) and sometimes even dangerous, as they would interfere with competitive price formation. These two distortions will eventually hinder the original motive of protecting the environment for the sake of the environment, as now protection is entirely a byproduct of extrinsic monetary rewards.

Proponents of market-based and offsetting mechanisms have a relatively easy task of rejecting these accusations. They can point out that the empirical research on economic incentives for environmental protection is mainly based on studies done on individuals in controlled settings, and these conclusions cannot be easily exported to firms and states acting in very different settings (Page, 2011). Furthermore, they can contend that there is no point in attacking solely market-based and offsetting

mechanisms on the ground that they attach economic incentives to environmental protection, as any other type of government intervention also attaches the same economic incentives, as we have seen in the paragraph on cost-benefit analysis, when this method is used for the evaluation of environmental projects.

There is a sense, however, in which this accusation cuts yet deeper, and is probably better conceived at the level of a general narrative in environmental politics. It is a reminder that there might be intrinsic risks in looking at the world solely through the green lens of the almighty dollar, and that, as a result, certain non-material things we are used to valuing could one day disappear. This might not turn out to be a dystopian society in any way, simply a very different one from ours, and perhaps unwelcome to many people. It is first and foremost a questioning of the general direction taken by environmental politics in the last 50 years, and the demand to not passively reify the neoliberal positions in environmental politics as an immutable "spirit of the time."

JUSTICE ARGUMENTS

As it has been explained at the outset of this chapter, the narrative of ecological modernization brings to the table of environmental politics the neoliberal message repackaged for the purpose of environmental protection. The basic elements of this narrative are: markets, market-based mechanisms, and, more generally, a certain *Weltanschauung* that sees economics, its competitive relations, and the maximization of profits as beneficial to the welfare of society at large.

There are usually two lines of argument to defend the basic elements of the narrative of ecological modernization on grounds of justice. The first is that they enable individuals to have the maximum enjoyment of the right of property, which trumps any other kind of right that people might claim to have in a given society. The second is that they embody the process of rational and strategic bargaining which is the only constraint that people could ever impose upon themselves. Both of these lines of argument are cashed out in two different theories of justice: Robert Nozick's theory of justice as entitlements and David Gauthier's theory of justice as self-interested reciprocity. Chukwumerije Okereke (2008) traces the normative bedrock of the international environmental regimes - which is his view can be read as models of neoliberal environmental governance - to these two theories of justice. My reconstruction will depart from Okereke's insights; however, while reviewing the two theories, I will contend that: (i) while Nozick's theory and concepts rightly pertain to the normative substratum of ecological modernization, they also highlight an internal tension between the two normative concerns of efficiency and justice. For this reason, the specific libertarianism of Nozick - for simplicity, I call it libertarianism à la Nozick - gets often sidelined within the ecological modernization narratives. (ii) Gauthier's theory of justice does not actually depart from the normative presuppositions of welfare economics. it can thus be understood as an attempt to collapse the justice dimension of ecological modernization into the efficiency one.

Nozick, justice as entitlements, and the environment

The defining feature of Nozick's theory is that individual rights - among which the right to property is the most important - must never be violated (Nozick, 1974). This is Nozick's most fundamental intuition. He does not directly argue for this position.[10]

However, through the famous Wilt Chamberlain example,[11] he shows how other theories of distributive justice which do not take these rights seriously would produce - according to him - unpalatable consequences. If the right to property is the most important thing, then it follows that a theory must specify how individuals come to have, keep, and exchange their possessions. As long as individuals respect certain principles regarding how they acquire and exchange their possessions, the distribution of possessions among all the individuals will be justified, no matter how unequally the wealth of the population might come to be distributed. The principle of justice in initial acquisition specifies how one can obtain a property that was previously unowned: similar to John Locke, Nozick argues that a person can acquire property by mixing her labor with the natural object, provided that by so doing she does not worsen the situation of other people compared to when the resource was unused - the so-called Lockean proviso.[12] The principle of justice in transfer specifies how justly acquired possessions can be transferred to other people: a person can transfer her property by giving it away as a gift, through trade, sale or inheritance, provided that she got it in a similar legitimate way or by just initial acquisition. When the possession of a property does not satisfy the two afore-mentioned principles, a third principle of justice - the principle of justice in rectification - can be called upon: compensation to restore the *status quo ante* must be made to the victim. It is in this sense that Nozick's theory is

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[10] That is why Thomas Nagel famously called Nozick's theory "libertarianism without foundations" (Nagel, 1975) and Brian Barry dismissed it by saying that the book's conclusions - he is referring to *Anarchy, State, and Utopia* - "articulate the prejudices of the average owner of a filling station in a small town in the Midwest" (Barry, 1975).

[11] Suppose that at a certain time the distribution of the resources in a society is just according to some principle of distributive justice, it can also be a patterned principle. Now suppose that a famous basketball player, Wilt Chamberlain signs a contract stating that he will receive a small amount of money - $ 0,25 - on every ticket sold, and as a result of this arrangement he comes to own a larger amount of money than anyone else in the society. If the initial distribution of resources was just, then it follows that all the individuals in the initial distribution had a property right in the resources they possessed. Given the fact that the new distribution arose through voluntary exchanges of holdings justly distributed, then - Nozick concludes, and his readers with him - also the new distribution in which resources are distributed unequally must be just. If some end-state redistributive principle was placed upon this new society - for example a succession tax - this surely will interfere with the voluntary exchanges made by the people, and this in the Nozickian framework cannot be allowed (Nozick 1974: 161).

[12] I will return later, in Chapter 4, on the Lockean proviso, as it is an important polemic target of eco-socialist scholars who believe that the rightful appropriation of an unowned good or natural resource should follow different ethical requirements.

historical: one can tell if a distribution of goods in a given society is just, merely by looking at its history, i.e. whether all the acts of acquisition and exchange of goods among individuals respected the three principles of justice. Nozick's theory is also "non-patterned" precisely because, by looking at historical transfers, it also precludes that goods should be distributed along the lines of a particular "pattern," such as maximizing utility, equal distributions, equality of opportunities, or many others.

Along Nozickian lines, then, markets (and markets in environmental products do not differ in this respect) could be defended on the grounds that they are the sole non-patterned mechanism available to distribute property rights - such as carbon rights and polluting rights - which does not violate individual rights. If anything, their reach should be extended to encompass all the goods that can be distributed within a society. A libertarian theory of justice opposes, accordingly, welfare-based redistributions on the basis that they would coercively impose transfers of goods, thereby violating the rights of those who oppose such transfers. Okereke (2008) finds some distinctive traces of libertarian thought in a few of the current international environmental regimes of supranational institutions. If no one may unwillingly be a resource to other people, then state redistribution and redistribution among states cannot be implemented without the violation of someone's property rights. It is by following this line of argument that - according to Okereke - the USA and other Western countries objected to the common heritage of mankind principle put forward by Malta, which postulates that the deep seabed should be preserved for peaceful purposes and its resources distributed on the basis of need, welfare, and common ownership. In general, during the negotiations of the Third United Nations Conference on the Law and the Sea (UNCLOS III), it was thought that the ocean resources could be used to counteract the economic disadvantages suffered by developing countries and that the principle could have been a manifestation of a New International Economic Order (NIEO) put forward few years before by the G-77 (Hossain, 1980). The USA rejected the Convention because of this professed commitment to welfare-based redistribution. Kemal Baslar implicitly endorses Okereke's reading of the negotiations regarding the common heritage of mankind - and its rejection by the USA - when he reviews how different ways of interpreting the Lockean proviso in initial acquisition informs the different positions tabled during the negotiations (Baslar, 1998).

Another important "libertarian element" is the emphasis on property rights. According to Okereke, the core of most of the debates which take place during the environmental regime development are related to attempts by states or corporate interests to establish and redefine the nature of property rights that exist with respect to the given issue. This emphasis, which is usually coupled with the belief that extending property rights provides a solution to the over-exploitation of the commons, translates at the international level in an expansion of property rights: the extension of the territorial sea to 12 nautical miles from the coast, the creation of rights to pollute within a cap-and-trade mechanism, and the creation of carbon rights in order to refer to the carbon stored in the tropical forests, are some of the most striking examples. Consequently, libertarians see the role of international regimes only as protectors of those property

rights. According to this view, the main goal of cooperation would be to strengthen the institutions required to enhance free exchange, and considerations of justice would primarily focus on assessing the validity and legitimacy of claims and counterclaims of ownership. It was on the basis of this economic worldview that the USA, during the UNFCCC regime negotiations, rejected proposals for the transfer of technology to developing countries on non-commercial terms, arguing that such a move would be incompatible with the protection of Intellectual Property Rights (Dasgupta, 1994).

Before analyzing Okereke's reconstruction of the libertarian-inspired elements of the international environmental regimes, two caveats are in order. First, one should exercise considerable caution in speaking of libertarianism at the international level, as many libertarians à la Nozick would happily do away with the modern welfare states altogether. That being said, granting that getting rid of the state is a utopia in the present state of international affairs, libertarians scholars who get involved in these debates take the state system as a given in their analyses and try to work out how libertarian principles would look like between states (Rothbard, 1974). Secondly, whether or not theories of distributive justice devised for the national level can be extended to the international level is still a thorny problem. Some scholars have extended local theories to the international level - most notably Charles Beitz (1979), Thomas Pogge (1989) -, whereas others claim that the factors that usually enable local redistribution - reciprocity for example - do not appear at the international level (Rawls 1999). This, however, does not pose a problem to Nozick's theory because he does not postulate the need for social cooperation among individuals - as both John Rawls and his cosmopolitan critics do - for establishing principles of justice. As having an inviolable right to property means first and foremost self-ownership, individuals - and states if the theory is projected onto the international stage - are free to establish a relationship and exchange goods with whoever is willing to do so, without any further restrictions.

Okereke's reconstruction has the merit of showing not only how certain libertarian ideas could be found outside the domestic domain, but also how ideas can be stretched, molded, and adapted to domains for which they were not initially intended. And it is in this sense that Okereke perhaps reads too much of Nozick into the international institutions. The libertarian stance applied to global issues seldom produces a coherent set of positions, and, as a consequence, it is difficult to trace policies or some of the developments in the international regimes to their true libertarian normative presuppositions. A libertarian theory of international justice would try to minimize interferences among states on the ground that such interventions would violate someone's right: for example, war produces casualties among civilians, and foreign aid produces an increase in taxation of the people of the donor countries (Rothbard 1974).

Following this line of argument, international regime negotiations cannot be easily understood from a libertarian perspective as the *loci* to force the hand of other state actors to implement particular policies. For example, given the constant infringement of property rights that pollution and, by turns, big polluters impose upon other people, the insistence of the USA on adopting a non-binding language in the negotiations leading to the UNFCCC - on this more below -, which *de facto* allowed the

big emitters to continue violating other people's right to clean air, cannot be easily fitted into a libertarian framework advocated by libertarians à la Nozick. Indeed, if it could be shown that a certain degree of unjustified coercion is involved in international negotiations, then it could be argued that a libertarian à la Nozick would condemn such international regimes. By "unjustified coercion" I mean putting other people in a situation they would not themselves have wanted to be in otherwise, and doing this for reasons that have nothing to do with rectifying a previous infringement of property rights. However, placing the concept of "unjustified coercion" at the center of the libertarian position when it comes to issues of global relevance can hardly produce a coherent libertarian stance. Coercion can be shown to sit on both sides of a debate during the international negotiations, depending on how problems are framed. Moreover, as coercion is justified when a previous violation of liberty occurred, it becomes important to define precisely when violations of liberty occur. But again, situations of violation of property rights lend themselves to different framings: what counts as an initial aggression, whether or not one could anticipate the aggression, or what is a sufficient ground to argue that aggression was forthcoming, are all issues open to interpretation. This is why, within the libertarian positions, extreme anti-interventionist positions in foreign policy - those of Republican Congressman Ron Paul, for example - live side by side with strong interventionist ones - those advocated by the well-known libertarian think-tank Ayn Rand Institute.

Analogously, it would not be impossible to construct very similar positions when it comes to climate change and environmental degradation in general. For example, positions that would favor tackling climate change ambitiously and in a timely manner, on the ground that pollution violates the property rights of people, could live side-by-side with positions submitting that each state should be free to autonomously decide whether to tackle climate change and how, on the grounds that no interference should ever be imposed on other state parties. Whereas Okereke's claim that the emphasis on property rights is a clear libertarian feature of the environmental regimes is not controversial, it is, however, debatable whether such emphasis has anything to do with Nozick's own brand of libertarianism. What I have so far called "libertarianism à la Nozick" is a particular idea of justice that puts property rights at the center of the libertarian normative framework: from the fact that no action whatsoever should violate property rights - unless there had been a previous infringement - a series of consequences follow, e.g. that markets should be allowed ample room to distribute goods among individuals or that taxation by the state is not warranted.

Another brand of libertarianism sees the emphasis on property rights as instrumentally important, rather then important *per se*. These libertarians - also called consequentialist libertarians - think that a well-protected system of property rights and markets is the best way to deliver utility to the society. They are philosophically minded economists who base their positions on the arguments on grounds of efficiency explored in the earlier part of this chapter. The differences between the two kinds of libertarians can be important: in an article on what it means to take property rights seriously when it comes to climate change, Jonathan Adler (2009) juxtaposes the positions of the free

market environmentalist - those that would uphold efficiency arguments - to the positions of the libertarians à la Nozick. He shows that taking property rights seriously - i.e. à la Nozick - would lead to policies in favor of tackling climate change even though they might not be cost-effective. Furthermore, libertarianism à la Nozick is even compatible with an interpretation of the principle of Common But Differentiated Responsibilities (CBDR) akin to the one developing countries would like to see recognized by the UNFCCC. Indeed, whereas developed countries see CBDR as a principle of justice that distributes burdens and benefits according to a pattern - "to each according to their responsibilities and capabilities" -, developing states would have preferred to see CBDR enshrining a historical principle along the lines of the Polluter Pays Principle (PPP): those who have historically over-occupied the commons have to compensate - "rectify an infringement of property rights," in a more libertarian vocabulary - the other countries by bearing all the costs of climate change mitigation. What I have called libertarianism à la Nozick - i.e. non-instrumental emphasis on property rights as a basis for a re-distributive mechanism focused on rectifying coercion - could be interpreted as a justice-based corrective mechanism to an efficiency approach, which is internal to the ecological modernization narrative. However, the element of an environmental regime which would have supported such an interpretation - compensation for small emitters and big emitters shouldering the costs of ambitious mitigation and adaptation policies where needed - were never fully operationalized into the climate regime, even though it was included in the original 1992 treaty of the UNFCCC.

A further problem, when it comes to tracing a given policy or elements of a regime to a certain libertarian normative presupposition, is that, today, libertarian ideas are used cynically by those who benefit from the *status quo*. Cost-benefit analysis - in the case of consequentialist libertarians - is used to slow down or stall regulations - although lately less frequently - that would negatively impact on the profits of big firms and corporations. Property rights arguments are invoked to promote policies and projects that would create from scratch new property rights the possession of which, in turn, will benefit those in a position to acquire these newly created rights. This is a concern that has been voiced by NGOs representing the forest communities during the initial stages of UNFCCC negotiations on REDD: the central governments who own the forested lands might claim to have a legal title to the carbon stored in the trees, thus directly benefiting from REDD and from the sustainable management of the forests operated by the local communities, which would be left almost empty-handed (Liss, 2013).

A general libertarian presupposition is present in the presumption against redistribution put forward by developed countries in regime negotiations. This presumption against redistribution is not motivated along statist lines - i.e. by saying that the international order lacks some *quid* which is relevant for distributive justice, which, on the other hand, is present nationally. Instead, it is argued through the rhetoric of property rights. The rhetoric of property rights, however, is a double-edged sword which can be used to advance positions which could justify both aggressive and costly

actions to curb environmental degradation and, on the other hand, inaction. In this sense, Nozick's brand of libertarianism highlights a tension within the narrative of ecological modernization between a justification of market-based environmental policies in terms of efficiency-based and justice-based arguments.

Gauthier, justice as self-interested reciprocity, and the environment

Gauthier's theory of justice departs from the *homo oeconomicus* as we left it at the end of the section about markets' role in bringing environmental protection. In particular, Gauthier sees justice as an order which arises out of the interaction among rational and self-interested individuals. It is in this sense that Gauthier's theory of justice (Gauthier, 1986) is only a subpart of a theory of rational choice, and his theory ultimately depends upon the idea that satisfying preferences is good. Everything else - for example, the moral codes that people follow out of habit - is simply rational constraints agreed among individuals that are lost and forgotten in the past.

When individuals are in a situation of strategic interaction - i.e. when the achievement of someone's goal or the satisfaction of someone's preferences is dependent on the actions of other people - and given the fact that sometimes rational decision making produces suboptimal outcomes (in prisoner's dilemma situations), all the utility-maximizing individuals are better off if they agree to mutually beneficial constraints on the pursuit of their individual utility: these constraints are the very institutions of our society. Compliance with such constraint is rational provided everyone complies with them. How then utility-maximizers individuals arrive to cooperate and devise these constraints is an important part of Gauthier's theory.

According to Gauthier, there are two distinct aspects of this issue: (i) how individuals divide the gains of cooperation (the cooperative surplus); (ii) how anyone can be sure that other individuals will comply with the constraints. The first of these two aspects is a bargaining problem, and is dealt by Gauthier by resorting to the notion of minimax relative concession. The idea of a minimax relative concession is that each individual in a bargaining game is mostly preoccupied with the concessions that she makes from the initial bargaining position - i.e. the maximum amount of the surplus she would like to claim - relative to the concessions that the other players make. If the concessions are reasonable compared to the concessions made by the other individuals in the game, then an agreement is reached. The concessions are considered "reasonable" when the outcome of the bargaining minimizes the maximum concessions of each actor partaking of the bargain.

Once a decision has been reached, how then can Gauthier make sure that all the individuals stick to their promises and do not walk away with the cooperative surplus - i.e. that they would not defect while others cooperate? "Constrained maximization" is Gauthier's answer to the problem: the individuals partaking of the bargaining game will forego straightforward maximization and will not break the agreement because each individual recognizes the value of cooperation, i.e. the group is made up of likeminded

individuals. Gauthier's answer begs the question, "but what if cooperation is not rational?" in case that, for example, the individuals happen to be engaged in a one-shot prisoner's dilemma? To this Gauthier replies that constrained maximization will increase future opportunities for cooperation and that, in any case, had there not been a mutual disposition to comply among the parties, an agreement - from which it is now possible to deviate - would have never been reached in the first place. Gauthier argues that, utility-wise, a society of constrained maximizers fares better than a society of straightforward maximizers; yet the problem remains concerning how exactly such a society might emerge and how it could perpetuate itself, even when individuals have *every* incentive to deviate. "Every incentive" means that the individual also considered the remote and long-time repercussions of her choice, and notwithstanding this decided to deviate. Each aspect of Gauthier's theory has been subject to intense criticism: both the minimax relative concessions criterion (Kavka, 1987) and the notion of constrained maximization (Kavka, 1987; Phillips, 1988; Vallentyne, 1991). This is an interesting issue on its own: whether our institutions and ultimately our theories of justice can be the product of a hypothetical agreement reached by self-interested individuals; the debate is far from settled.

According to Gauthier, however, perfectly competitive markets do not need to be justified by recurring to the artifice of a hypothetical agreement among actors who try to minimize their maximum relative concessions, as one would need to do for the redistributive system of society. This is because in a perfectly competitive market cooperation brings no gain and straightforward maximization does not produce sub-optimal results. As no individual can singularly affect the prices of the goods, they are "morally free zones," to quote Gauthier's own expression (Gauthier, 1986: Ch. 4). As straightforward maximization in a perfectly competitive market yields the greatest utility, there is no need to derive morality - i.e. self-imposed constrained maximization - from rationality. What is rational is for each individual to bargain her way to the satisfaction of her preferences, without caring about the other individuals, as it is precisely in this way that utility will be maximized. In this sense, perfectly competitive markets are a sort of regulative idea for Gauthier: there would be no need for morality if all the relationships in life were modeled along the structure of perfectly competitive markets. He would probably defend markets and market mechanisms extended to environmental products as long as they try to approximate to this perfectly competitive ideal. His defense of the market is thus best understood in terms of a standard efficiency argument grounded on welfare economics.

According to Okereke, Gauthier's idea of justice as self-interested reciprocity could also be used to uncover some important normative presuppositions of the international environmental regimes. Gauthier's theory might not be useful in justifying markets on ground of justice, but at least it could tell us something about the international regimes that made the idea that markets should be used to halt environmental degradation one of the central tenets of environmental politics. In particular, he sees the great allowances often made by the developing countries and the hardline stances often adopted by the developed countries as the product of a bargaining

process in which each party wants to minimize the maximum relative concessions. In this case, the developing countries are portrayed by Okereke as big gainers from cooperation who actually contribute little to the creation of the cooperative surplus, whereas the developed ones as small gainers from cooperation who contribute a lot to the creation of the cooperative surplus. Following Gauthier's line of argument, an agreement would be reached in these situations when those who contribute the most to the cooperative surplus claim for themselves most of the cooperative surplus and those who contribute the least are content with a smaller part as, long as cooperation occurs. Translated into the concrete example of the UNFCCC negotiations in 1992, the developing countries are those who would gain the most from an ambitious climate treaty but are also those who are willing to accept a more modest climate deal as long as some climate deal get signed. Both parties benefit from cooperation, but the one who loses the most if the other one walks away from the bargaining table should be willing to relinquish most of the cooperative surplus. This is exactly what happened during the UNFCCC negotiations in 1992 according to William Nitze, the leader of the USA negotiating team, who adamantly maintained that a climate agreement favorable to the position of the USA resulted

> "[...] from the unwillingness of either the other OECD countries or the major countries to sign an agreement without the participation of the US. These countries determined for themselves that an otherwise well-structured convention with non-binding language on short-term targets that could be signed by the US was preferable to a similar convention with binding language that was not signed by the US" (Nitze, 1994: 188).

The same interpretative lens could well be applied to what happened in the days and hours leading up to the final decision on the Paris Agreement (UNFCCC, 2015): in an earlier draft of the agreement, Article 4.4 stated that developed states *shall* continue taking the lead by undertaking emission reductions. The final version states that developed countries *should* continue taking the lead. "Shall" denotes legal obligation; this would have put developed states in a more compromising position and the US, in particular, could not have ratified the treaty without passing and getting approval from the Senate which, when controlled by a Republican majority, holds a climate skeptic position.

Gauthier's insistence on the fact that bargaining among rational self-interested individuals is at the foundations of the institutions of our society, and Okereke's reading of it, according to which the same processes are involved in treaty negotiations, are consistent with a neoliberal institutionalist reading of international relations, as the one developed, for example, by Robert Kaohane (1984). But whereas neoliberal institutionalists suspend judgment concerning whether or not the emerging order meets certain established requirements of justice and content themselves with the explanatory power of their theories, Gauthier claims that the byproduct of bargaining among rational self-interested actors is in itself a just outcome.

Okereke finds, on the bases of the implicit adoption of Gauthier's idea of justice - the satisfaction of preferences to be achieved through bargaining among rational self-

interested individuals -, that the emerging international order must have certain basic features: a certain aversion to welfare-based redistribution, overriding emphasis on property rights, and emphasis on free-market solutions. And yet, while Okereke's analysis is empirically correct because historically, in the short history of our international institutions, bargaining among international actors did produce policies along libertarian lines, thus reflecting the bargaining power of those who wanted the international institutions shaped by neoliberal principles, he is nonetheless wrong when he claims that those basic libertarian features of the international environmental regimes are due to the mere implicit adoption of the principles of justice devised by Gauthier: minimax relative concessions and constrained maximization. What Okereke fails to appreciate is that even a Rawlsian society could, in theory, follow from the type of bargaining envisioned by Gauthier, provided that this outcome is the one which minimizes the maximum relative concessions of all the bargaining actors. Gauthier's theory may well justify the international environmental regimes and the policies adopted by them on the basis that the bargaining used to arrive at them meets his own requirements of procedural justice, yet Gauthier's theory ultimately remains silent on the normative stances and motivations that originally moved the actors partaking of the bargaining game.

CONCLUSION

There are certain common elements in this chapter that cut across and inform both the arguments on grounds of efficiency and on grounds of justice: (i) emphasis on utility maximization; (ii) emphasis on property rights; (iii) aversion to welfare based redistribution; (iv) a thin conception of the role played by institutions in our society.

The first two elements of the list provide the true normative foundations subtending the policies advanced in the narrative of ecological modernization. Utility maximization cashed out in terms of the maximization of preference satisfaction is a normative notion informing both the different notions of efficiency employed to justify and implement the environmental policies (market-based and offsetting mechanisms) and the evaluative methods (cost-benefit analysis) usually associated with the narrative of ecological modernization. Utility maximization cashed out in terms of the maximization of national interests - similarly to neoliberal institutionalists in international relations - can be read as guiding the idea of justice espoused by Gauthier, when his theory is applied to bargaining situations in international contexts.

How then do we get environmental protection by placing the idea of utility maximization at the center of the normative framework? As preferences need be maximized, there is nothing in theory that might hinder people from choosing to maximize the actions that have a positive impact on the quality of the environment if they wish to do so; utility maximization is therefore perfectly compatible with environmental protection. This is not, however, how the story is usually told. Environmental protection is not, or at least not initially, a good to be maximized. It is

rather a sort of an acquired taste and a positive consequence along the route to economic growth and prosperity. After one has fulfilled more immediate needs, and given the increasing scarcity of natural resources, one starts to form preferences in line with environmental quality and protection. Given that there is only an indirect connection between the satisfaction of one's preferences and environmental protection, mediated by the maximization of profits and economic growth, the distributional effects of maximizing profits also have a bearing on environmental quality. Thus, there is a perfectly rational explanation as to why poorer communities are often located near to polluting factories: housing prices fall near polluting factories and unskilled workers are willing to accept riskier jobs in polluting industries. Poorer people are also willing to pay less for environmental protection when queried about this in a survey, whence the impression that they value less certain environmental amenities, which in turn gives reason to the local administrators of poor communities not to take action against environmental degradation. Property rights are valued both *per se* as a foundational normative idea from which it is possible to draw the consequence that markets should be allowed ample room to work freely as distributing mechanisms; and they are also valued instrumentally, given that well-established and well-enforced property rights are found to be conducive to economic growth.

The third element is a direct consequence of taking seriously the normative idea that property rights are inviolable. As a result, redistribution of resources is seen as unjust because, according to the scholars working in this line of libertarian theory, there is no reasonable argument to take away something that had been rightly owned.

The fourth element is a consequence of viewing individuals as economic actors competing for the same resources in a strategic manner. This is, for example, the case when environmental degradation is framed in terms of an externality that people or firms would be willing to impose on other people if they are allowed to do so. Institutions are considered *merely enablers* to economic growth, they do not provide some other valuable social service. Or if they do so, it is ultimately instrumental to economic growth. They do this by forcing cooperation in situations of prisoner's dilemmas or the tragedy of the commons, and by creating the conditions for the market to work properly - through the creation of property rights and tribunals which decide about claims of ownership.

CHAPTER III
THE NORMATIVE PRESUPPOSITIONS UNDERLYING THE NARRATIVE OF CIVIC ENVIRONMENTALISM

"A serious problem is that if we choose climate policy to redistribute rather than to reduce emissions as cheaply as possible, we risk significantly raising the cost of emission reductions or reducing their efficacy. Climate change is sufficiently serious that reducing emissions at the lowest possible cost must be our central task. As the risk from climate change increases, the problem becomes more severe: sacrificing climate change goals for distributive benefits quickly becomes a bad trade-off if failure to reduce emissions leads to terrible consequences. The greater the risk of catastrophe, the more important it is to choose the most effective climate policy. By tying the two issues together (i.e. abating CO_2 and equity), we risk hurting both goals." This passage is taken from *Climate Change Justice*, a book by Chicago Law School Professors Eric A. Posner and David Weisbach (2010). As the passage makes clear, the main claim of the authors is that a climate treaty should set emission levels that are optimal for the globe, and not attempt forms of global redistribution. The book has been attacked on several grounds - a good overview of the numerous contested issues is provided by Clare Heyward (2012) and Daniel Farber (2012). However, there are two controversial elements that have passed largely unnoticed in the literature, justly focused on more macroscopic problems throughout the book. Even if we accept the claim of the book - that it is not the moment to deal with distributive issues - it does not follow that we must reduce emission at the lowest possible cost; the authors have in mind market-based mechanisms. As it was made clear in the previous chapter, these mechanisms have themselves certain distributional effects; whereas the position that a treaty need not deal with distributional concerns can be defended, it is more difficult to defend the position which endorses the employment of mechanisms which, while not directly aiming at redistributing resources, would themselves, in certain cases, entrench or worsen certain distributive imbalances. An even more deceitful claim made in the passage above takes for granted that agenda-setting should be made on grounds of efficiency arguments alone: the authors say that "reducing emissions at the lowest possible cost must be our central task."

In the context of the present chapter the first element - market-based mechanisms might entrench or worsen distributional imbalances - is regarded as a distributional concern. Whereas in the previous chapter these imbalances were either tolerated in light of increased utility for the majority of the people, or seen as a legitimate consequence of what talent, hard work, and dedication might produce if left unhampered in a market

economy, here they are seen as unfair distributions of wealth. The normative presuppositions underpinning the positions which would deem this distributional concern as unfounded have been explored at length in the previous chapter and will only require cursory exposition, inasmuch as civic environmentalism offers a criticism of it. Where does the distributional concern stem from, considering that it would not be possible to form such a judgment from within the normative frameworks employed by the proponents of market-based mechanisms? The first section of this chapter deals with this question. The second element is a legitimacy concern: efficiency arguments are often used to set the political agenda of disparate disciplines engaged in environmental protection, thus *de facto* biasing the decision-making process in favor of a particular set of normative ideas. The second of these concerns does not belong to the ideas of ecological modernization *per se,* but it is a consequence of the fact that the decision-making elites tend to converge towards a certain ideological framework, and this ideological framework happens to be the one of ecological modernization. These two concerns - for distributions and legitimacy - will help us bring into focus the polemic targets of the present chapter. What can be done to steer clear from the two deviations targeted by these two concerns is, on the other side, the constructive part of the present chapter.

Scholars working in a disparate array of disciplines have found in mechanisms of participation in and increased democratization of both local and international institutions a possible solution to the two aforementioned concerns. In the environmental domain, the narrative of public participation and democratization is usually associated with the Earth Summit held in Rio de Janeiro in June 1992. Well before these issues were discussed in Rio, the importance of keeping citizens abreast of what the local environmental planning authority is doing, and of engaging them actively, was already investigated in a 1969 report by the Skeffington Committee (Skeffington, 1969). The committee was requested to inquire how public participation could be implemented in the framework of the United Kingdom's Town and Country Planning Act (1968). At the same time and on the other side of the Atlantic, in her book, *Silent Spring*, Rachel Carson urged her readers not only to use their "right to know," but also to act upon it, i.e. to contest in the appropriate *fora* the use of carcinogenic pesticides (Carson, 1962). The themes of public participation in environmental governance were undoubtedly already present. However, two events in particular make the association of the Earth Summit with the narrative of public participation in environmental governance more than just an established convention. The first is the formalization within Agenda 21 - a United Nations non-binding voluntary action plan to implement sustainable development - of the so-called "major groups" in the architecture of the United Nations system concerning environmental and developmental issues. The second is the inclusion among the Rio Principles of a principle precisely dedicated to public participation in environmental governance, namely, Principle 10. Agenda 21 establishes that there are nine major groups, each representing a different sector of civil

society.[1] Each one of these sectors is in turn represented by a handful of partner organizations which participate in the intergovernmental process on behalf of their constituencies. The role of the major groups is to convey the requests and aspirations of the constituencies of the partner organizations and voice them where decisions are made: its representatives thus distribute information, release official statements and position papers, and can informally lobby with Member States. Principle 10 of the Rio Declaration states that it is of paramount importance that environmental decisions are participatory - "environmental issues are best handled with participation of all concerned citizens" - and it also cashes out the basic components of the principle, which have later become the three pillars of the UNECE Aarhus Convention of 1998: access to information, participation in decision-making, and access to justice. Parallel to the Aarhus Convention, other international bodies have recognized a right to privacy and property broadly construed as to incorporate access to information, participation in decision-making, and access to justice in environmental matters (Redgwell, 2007).

But then how could participation and democratization actually help correcting the dynamics linked to the two aforementioned concerns? And what are their normative presuppositions? The second part of this chapter deals with these questions. However, I am also going to show that, while providing a criticism of the lopsidedness of market mechanisms in environmental protection, a certain idea of participation found within the narrative of civic environmentalism - i.e. the idea of participation as conveying information - does not actually depart from the more general mindset that sees the satisfaction of preferences as an appropriate means to tackle environmental degradation.

THE TWO CONCERNS

The distributional concern

Whereas the phrasing of Principle 10 of the Rio Declaration is quite cryptic and leaves the secondary literature the exegetic work of understanding why precisely environmental issues are best handled in a participatory manner, the phrasing of Chapter 23 of Agenda 21[2] gives an indication of where precisely, according to the drafters of the document, lies the importance of public participation mechanisms. Broad public participation is said to be a "fundamental prerequisite for the achievement of sustainable development" (UN Conference on Environment and Development, 1994: 270). The narrative of public participation gained momentum as a result of a period of bitter contestation both as to the meaning of sustainable development - strong and weak versions of the concept were amply debated (Costanza and Daly, 1992) - and as to the

[1] The Major Groups are: Women, Children and Youth, Farmers, Indigenous People, NGOs, Trade Unions, Local Authorities, Science and Technology, and Business and Industry.

[2] It is the section of the document in which the major groups are formally institutionalized.

different domains such concept is supposed to cover: environmental, economic, and social.

Stating the importance of public participation for sustainable development can be seen as a response to the dominant neoliberal approach to environmental governance. This approach is characterized by two different, yet related, elements: (i) a market-friendly interpretation of the meaning of sustainable development, (ii) and the marketization of participation. Both of them can be contested from a point of view external to welfare economics and libertarianism. These external criticisms ably capture the first distributional concern, i.e. that market-based mechanisms might produce, entrench or worsen distributional imbalances.

The first element – the market-friendly interpretation of the meaning of sustainable development – derives from highlighting the importance of the economic component of sustainable development while downplaying the social and environmental components. In this sense, developing sustainably means ensuring that environmental degradation is minimized in the most economically efficient way, largely irrespective of other social and environmental impacts. The other components of the concept of sustainable development – environmental quality and social well-being – are not lost, but they are absorbed into the economic dimension. Environmental quality is assimilated into the economic dimension through theories such as the Environmental Kuznets Curve (Grossman and Krueger, 1991) and post-materialism (Inglehart, 1977), whereas supply-side economics does the same for social well-being. Minimizing environmental degradation in the most economically efficient way requires, for example, emission levels optimal for the globe and ample room for market-based mechanisms. This would almost certainly produce some new imbalances in the distribution of wealth and entrench some old ones, but within this framework they would be justified because CO_2 reduction would ultimately increase the utility for the majority of the people.

The second element – the marketization of participation – is a direct consequence of a property rights approach to environmental governance. This approach to environmental governance would try to solve environmental degradation by better enforcing property rights and, if necessary, creating them, and by widening the reach of markets in environmental products. When all the natural resources have been allocated – free-market environmentalists argue – it will be possible to properly protect them: usually, people take care of what they privately own and value those resources; if they do not, then they might sell it to people who value them more in the form of tradable rights or permits. What one values is nothing other than what one is willing to pay or accept for a certain resource; its price reveals the person's preferences concerning the management of that resource. In the neoliberal panorama, participation intended as expressing one's view concerning the management of a particular natural resource cannot but be achieved through participating in the market as a buyer or seller. This approach to environmental governance links environmental protection not only to willingness to pay but, more critically, also to the ability to pay. Even though a person might be genuinely interested in buying and protecting a given natural resource, she

might not be able to do so. Hence, within this understanding of environmental governance, poorer people have less voice in matters of environmental protection.

Thus, the marketization of participation and the use of market-based mechanisms might produce, entrench or worsen distributional imbalances. How do we go from this to saying that this is unfair, especially if market-based mechanisms increase the overall utility of a population, and if we assumed that the original allocation of the resources to be protected through the markets was fair?

The criticism in terms of unfair imbalances departs from a different understanding of the individual rights and liberties that ground both welfare economics and libertarianism. Indeed, the theories which provide the normative substratum to the narrative of ecological modernization depart from the idea that citizens are free and equal and that there is a set of individual rights, civil and political, that need to be guaranteed to these autonomous citizens above anything else; they differ however in the way they operationalize these ideas and rights into politics. For example, whereas libertarians maintain that protecting those rights entails a minimum amount of state interference in the lives of its citizens, even though this might create extremely imbalanced distributions of wealth (recall Nozick's Chamberlain example from the previous chapter), for more "socially conscious" liberals the opposite is actually true: protecting those rights means providing at least a minimum of opportunities, resources or goods in order to be actually able to enjoy the rights that otherwise would be only formally guaranteed. From this point of view, a distributional imbalance becomes an unfair distribution when certain groups of people do not have the means to fully enjoy their fundamental liberal rights or, compared to other groups within the same society, have considerably fewer means to exercise their rights.

The legitimacy concern

Two shifts took place in the twentieth century that might explain why efficiency arguments had been successful in shaping the environmental agenda both within states and in the international institutions: the first, managing the environment has been portrayed as a technical task; and second, economics has become – or has been presented as – a technical value-free discipline which can provide or recommend solutions to value-laden issues. Even before the '60s and '70s, when, according to the vulgate, environmental conscience started to emerge, environmental degradation had been portrayed as a technical problem requiring a technical solution provided by technical personnel. At the beginning of the twentieth century, these tendencies were already visible in the U.S. Forest Service. Gifford Pinchot, the initial leader and "father" of the Forest Service, conducted a bureaucratic revolution by staffing the agency with university-educated agronomists and foresters chosen on the basis of merit, instead of elected politicians. He also pushed for conservation policies based on scientific management of natural resources and long-term sustainable commercial use of forests; he disapproved of both timber companies, which wanted a faster exploitation of the

resources, and preservationists à la John Muir, who looked at the forests as wild and sacred places to be left untouched, not "managed" (Balogh, 2002). The effects of such "technification" in the forestry domain were clearly visible: a bureaucracy largely autonomous from the changing political landscape, free to apply the internal criteria of its discipline in order to achieve its objectives, and which, as a consequence, is also less accountable to the general public in possible cases of mismanagement.

Disciplines frequently interfacing with the interest of a larger public and not purely theoretical, like forestry – climatology and medicine can be further examples –, are not immune from the question "what for?", i.e. what is the value, or set of values which inform the "public face" of a technical discipline? Or, put more bluntly still, which interests is its bureaucracy supposed to serve? At bottom, the dispute between conservationists à la Pinchot and preservationists à la Muir at the beginning of the twentieth century concerned precisely such value-finding questions: whereas Pinchot saw value in sustainably exploiting the natural resources for the benefit of the citizens, Muir contended that value was to be given to natural resources as they are found in nature, that value is intrinsic in nature. Such questions, however, seldom can be settled within the boundaries of the very discipline and with its tools; in a sense, "what agenda should the forestry bureaucracy put forward?" is not a question for agronomists and foresters.[3]

It is in this context that economics emerged as a powerful ancillary science for many disciplines whose technical practitioners occupy public, policy-making roles: by aggregating preferences the economists could then answer those value-finding questions that lie outside the boundaries of the discipline. This had been made possible by the perceived unique position of economics among the other sciences: softest among the hard sciences; hardest among the soft ones. "Hard" and "soft" to refer to sciences are colloquial terms that have been somewhat discredited after Thomas Kuhn's work on the structure of scientific revolution (Kuhn, 1962 [2012]).[4] The distinction, however, is still useful in this context to better understand the success of economics in informing the political agenda of disciplines which aim at shaping public policy. Two elements of economic science, one hard and one soft, made this possible. The first one is familiarity: scholars in economics do try to provide testable predictions, employ quantifiable data, and control experiments; their methods are similar enough to those employed by

[3] This claim has been made a number of times also from within the forestry domain from scholars critical of the direction taken by the forestry profession. A seminal article is (Behan, 1966); see also (Chase, 1995) and (Luckert, 2006).

[4] Hard sciences – which use testable predictions, quantifiable data, controlled experiment – from time to time progress not without leaps; and sometimes new paradigms are accepted not on the basis of verifiable controlled experiments. Soft sciences, on the other hand, do not rely on the prescriptions of the scientific method: the theories are not always testable, there is ample room for qualitative analysis of data, and often consist of looking at the same objects or events from a different point of view, i.e. putting forward a new narrative. Humanities, as an example of soft sciences, are not less rigorous than the exact sciences, but they are accountable to different criteria of rigorousness, such as internal cohesion.

scholars in other hard disciplines. Secondly, by aggregating preferences scholars in economics supposedly provide an indication of what a society values. This is usually portrayed as a clean process where the economist does not get her hands dirty by projecting her own values onto a value-laden issue. This is a deceiving image of the profession; the ethical debate over the last decade on discounting the future in climate economics unmasks it.[5] Yet the common perception is that, while employing hard methods, economists deal with issues dear to soft sciences. It is this double nature – a value-free science of what people value – that made efficiency-based arguments so popular in various disciplines, such as the environmental ones, whose recommendations affect public policy.

The problem lies not in the fact that practitioners within different disciplines rely on economic arguments for their policy recommendations *per se,* but rather in the fact that in the environmental domain efficiency-based recommendations have crowded out other normatively different considerations. This is what is implied when scholars say that the narrative of ecological modernization is a *hegemonic* narrative in environmental politics (Hajer, 1995); or when they complain about a loss of socio-diversity following the adoption of policies whose rationale hinges on Rational Choice Theory (O'Hara, 1995). The problem is not that efficiency-based recommendations produce specific unwanted results: rather, that the ultimate policy decisions are the product of a process which fails to reflect a wider spectrum of positions, ideals, and values. When this happens at the level of supranational institutions such as the World Bank, the UNFCCC, the WTO, and others, a problem of legitimacy of these institutions opens up. How can these entities ask regional or national actors to comply with their demands if they fail to consider their points of view in their deliberations? This is mostly a procedural concern: if efficiency arguments are consistently used to set the political agenda of disparate disciplines engaged in environmental protection, the result will be a bias towards and overrepresentation of a particular set of normative ideas, i.e. the utilitarian framework underpinning welfare economics, thus creating a problem of political legitimacy.

THE NARRATIVE OF PUBLIC PARTICIPATION AS A RESPONSE

How precisely could public participation mechanisms challenge the neoliberal environmental governance in dealing with the distributional and legitimacy concerns? First of all, we need to agree on a definition of public participation. Subsequently, we can analyze what it entails and how it could provide a correction to the problems highlighted by the two concerns. The definition of the International Association for Public Participation seems a good place to start, not only because it comes from an authoritative source, but also because it is analytically simple. IAP2 defines public

[5] On this see the debate among Stern, Nordhaus, and Weitzman following the publication of the Stern Review on the Economics of Climate Change and Broome's account of it. See (Stern & Great Britain Treasury, 2006), (Nordhaus, 2007), (Stern and Taylor, 2007), (Weitzman, 2007), (Broome, 2012).

participation as "any process that involves the public in problem-solving or decision-making and uses public input to make better decisions."[6] The IAP2 definition has the advantage of being analytically simple because it does not focus on elements difficult to ascertain, such as the ever-shifting balance of power between citizens and decision-makers.[7] Furthermore, the definition does not necessarily exclude that forms of market participation might be realized, yet by placing emphasis on "involving the public" and by assuming that a public sphere for decision-making actually exists, it undermines the idea that participation through the market could be the only possible way to affect environmental governance.

The first distributional concern is that market-based instruments alone might well provide environmental protection but it is contested that they can provide *equitable* environmental protection. The second concern - over the legitimacy of the decision-making process - is that efficiency arguments are consistently used to set the political agenda of disparate disciplines engaged in environmental protection; the consequence of this is a bias towards, and overrepresentation of, a particular set of normative ideas.

By asking directly to the people affected by a specific project, or to some organizations which represent them, to voice their opinions regarding how their livelihoods will be impacted as a result of the project – i.e. providing inputs in the vocabulary of the definition – decision-makers could put in place a plan in order to counterbalance, or at least alleviate, the inequitable effects of the project. In this context, what is important is that, by participating in the decision-making process, the people affected by a project provide valuable information. The important currency in this context is not participation *per se*, but *information*. The more distant the *loci* of decision from the base (e.g. international), the more likely that decision-makers lack relevant information to provide equitable policies. These dynamics are intensified by the fact that in non-democratic societies certain instances might never arrive at the decision-making table, whereas pork-barreling, intense lobbying, campaign contributions, and influence over the media, might equally screen-out the demands of important parts of the population in democratic ones.

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[6] Preamble of the IAP2's Code of Ethics for Public Participation Practitioners, available at: http://www.iap2.org/?8 (last accessed May 2017).

[7] Definitions of public participation are often contested; for example many definitions start from a presumption of change, i.e. participation is something that happens when a partial shift of power between decision-makers to citizens occurs. For an overview of these definitions see Ann Richardson's *Participation* (1983: 23). A famous example of one of such definitions is Sherry Arnstein's "ladder of participation": participation is something that occurs when a significant amount of power is redistributed to the advantage of the people who did not have it before. The "intensity" of this redistribution is exemplified by the concept of a ladder where at the bottom there is little to none redistribution, hence no participation, at the top there is full redistribution, hence full participation. The following is the "ladder", starting from the lowest case of (non-)participation: (i) manipulation, (ii) therapy, (iii) informing, i.e. access to information in the language of the present article, (iv) consultation, (v) placation, (vi) partnership, (vii) delegated power, (viii) citizen control (Arnstein, 1969: 216)

Often, distributive problems cannot be effectively tackled by simply adding more information; this happens when there are contesting positions of what counts as an equitable outcome in the first place. In these cases, trying to solve the distributional problem without having previously addressed the question of what it means for a policy outcome to be equitable at all will, more often than not, produce a half-baked policy solution. In other words, in certain cases, a distributional problem cannot be tackled by means of a technocratic approach which adds more information. Instead, it requires a procedural approach which subjects the main ideas for resource redistribution available in a community to political deliberation. By doing so, this procedural approach to participation is also able to dispel the legitimacy concern over the undue weight of certain epistemic communities (including economists) in pushing their substantive values in both setting the policy agenda and in providing policy solutions.

By allowing certain organizations, communities or even specific individuals to take part in the decision-making process – "involving the public" in the definition – the decision-makers give these actors the power to subject the shortcoming of economic efficiency to political deliberation. Participating people can thus frame the issues dear to them in their specific vocabulary, choose which normative ideas they would like environmental politics to be informed by, and, ultimately, influence politics. Smith tells the story of a Natural Resources Canada-sponsored conference she attended in Montreal in 2005 in which an Inuit hunter gave a compelling testimony about the impacts of climate change in the Arctic region. She recounts that the speaker "put a much needed human face on the issue of climate change" and that he reminded her "of the voices, human and natural, that are too often marginalized from the world of targets, timetables, science, and international negotiations" (Smith, 2007: 197). In this context, it is participation intended as *presence* at the decision-making table which is the important element, potentially able to dispel both of the concerns identified above.

One the one hand, more and better information to help decision makers design more equitable policies and projects and, on the other, influencing the decision-making process by subjecting distributional problems to political deliberation, are the two drivers of participation which present a challenge to the neoliberal approach to environmental protection. There is some conceptual overlap between the two drivers, as both conveying information and being present have the potential of influencing policy; furthermore "input" in the definition offered by IAP2 is a term generic enough to capture both. However, the distinction stands from an analytic point of view, as influencing by being present captures a broader set of actions which include, for example, bargaining or informal lobbying. Finally, the two drivers of participation are in turn informed by different normative presuppositions, albeit similar. To these issues I turn now.

THE NORMATIVE PRESUPPOSITIONS UNDERPINNING THE NARRATIVE

Principle 10 of the Rio Declaration – and later the Aarhus Convention – crystallized the idea of participation in environmental governance into three different components: access to information, participation in decision-making, and access to justice. The third component is ancillary to the other two and provides a guarantee that judicial recourse procedures can be called upon in case a party violates the rights enshrined in the other pillars of the Convention. Its normative presuppositions mostly have to do with the principle of legal certainty and the positive consequences that follow from it. Access to information is ancillary to participation in decision making. 'Access to information' is different from what I called information as a driver for participation (first driver) and is ancillary to it. Indeed, in order to provide information to the decision makers on how a certain project will impact the livelihoods of one's own community, a person needs to form a mental image of how her livelihood will be changed as a consequence of such a project. To do this, she first has to access the information concerning the project – in case of a biomass power plant, what resources it will burn, how much of them, the health risks involved in burning the resources, etc. By the same token, access to information is also propaedeutic to being able to engage in the actual decision-making process (second driver).

In theory, access to information is something that happens before – both conceptually and chronologically – participation occurs; albeit necessary for participation, it is distinct from it. Seen in this light, it would be justifiable to leave this component aside and concentrate only on the normative presuppositions which inform the two drivers of participation. However, in the last three decades, following the success of the early disclosure initiatives such as pollution inventories, access to information has come to be perceived as an instrument on its own, something that can work toward providing environmental protection independently of whether citizens use the information to directly challenge or help the decision makers. For this reason, alongside the two drivers for participation, I also briefly analyze the normative presupposition underpinning the right of access to information.

The normative presuppositions informing access to information

The right of access to information is usually assimilated to the right to know in the environmental domain.[8] From a purely analytical point of view, there are some differences between "having information" and "having knowledge," as the latter is what comes out of a process of reflection and analysis for which information is one of the main inputs. In theory, these differences also have a bearing on the corresponding

[8] For example, Sharon Beder (2006), in her introductory book on environmental politics, treats the two rights together without making distinctions between them.

duties: providing information requires less effort on the actor disclosing the information, as compared to providing knowledge. Looking at how legislation on these matters developed in practice, the opposite is true. Right-to-know legislation, which emerged in the 1960s and 1970s, required polluting firms to make information accessible only upon request through a formal bureaucratic process, and information was more fragmented and not user-friendly. The disclosure initiatives from the 1990s onwards, following the narrative of participation which emerged from the Earth Summit, and thus more directly associated with the concept of access to information, display a more proactive and user-friendly publication of environmental information (Mol, 2008: 134).

Access to information as a strategy to bring about environmental protection has often been described as the third wave of regulation; the first being command-and-control and the second market-based mechanisms. The three 'waves' actually coexist as today all three approaches to environmental protection are employed, yet the terminology is useful in reflecting the progressive appearance of each strategy on the international stage. Roughly, the first one emerged in the 1970s, the second one in the 1980s, and the third one in the 1990s. Ann Florini (1998) was the first to capture and popularize this new trend toward more transparent governance – she called it 'regulation by revelation' – in a wide array of domains: security, politics, economics and environmental.[9] A decade later, Aarti Gupta (2008) gave new momentum to the research on the third wave of regulation in the specific domain of environmental governance. The state of research is now marginally better, as studies on this third wave in environmental politics have started pouring in (e.g. Gupta and Mason, 2014b), along with more technical studies on the economic rationale behind regional disclosure initiatives.[10] This section partially draws on these studies.

There are two main arguments on the grounds of efficiency as concerns the right of access to information. Both of these arguments justify the right of access to information by establishing a direct link between the disclosure of environmental information and environmental protection. The first argument depicts access to information as a low-cost regulation because of the simple enforcement procedures they require on the part of states. In this case, a state requires that certain industries disclose how much toxic chemicals are released into the environment or whether certain products are manufactured in an environmentally-friendly way. This does not require the environmental agency to ensure compliance by directly regulating plants: it only has to gather information, publish and keep an updated database, and monitor the firms' reporting of pollution (Bui and Mayer, 2003; Wang *et al*., 2004). Examples of these

[9] At the same time, other scholars examined the implications for the environment of what has come to be known as informational regulations. See (Konar and Cohen, 1997) and (Tietenberg, 1998).

[10] For example, China's Green Watch Program and the PROPER programme in Indonesia have received considerable attention, in part because of the different institutional background of these initiatives, compared to Western disclosure initiatives such as US Toxic Release Inventory or the UK's Pollutant Inventory. See (Wang and Wheeler, 2003) and (Dasgupta *et al*., 2006)

types of regulation include the various release inventories such as the US Toxic Release Inventory or the UK's Pollutant Inventory and ecolabels such as the Forest Stewardship Council or the Energy Star. Most of the eco-labelling initiatives are nowadays initiated and managed by NGOs but states, supranational institutions, and international organizations retain the power to set the standards that the various ecolabels have to meet; they thus prevent customers from being deceived by greenwashing operations. Behind pollution inventories and ecolabels stands the idea that consumer patterns are pivotal for environmental protection. The dynamic between information disclosure and increased quality of the environment has been called 'shock and shame': the release of pollution information will first shock the citizens, the markets, and the media, and it will then shame the respective companies, which will be more prone to change their production to meet better environmental standards (Stephan, 2002). By providing information concerning the environmental impact of firms and products, citizens and customers will orientate their choices – it is hoped – in a greener direction. For these initiatives to work, however, a few boxes of important assumptions made along the way need be ticked. First, a state needs to be at least partially populated by already environmentally conscious citizens. A culture of environmentalism of some sort already needs to be present for citizens to be responsive to ecolabels and pollution inventories. We can speculate that these initiatives might spur curiosity towards knowing more about the health hazards linked to certain pollutants or the manufacturing of certain products, but the link between ecolabels and the *formation* of an environmental consciousness has yet to be investigated. Second, the idea that environmentally conscious citizens will respond to such initiatives presupposes both an idea of personal autonomy and an idea of citizens as rational self-interested individuals, reacting to external incentives, and furthering their aims in a strategic manner. Third, the idea that environmental protection can be brought about by incentives triggered by people and to which business will respond underpins the neoliberal idea of public participation through the market. This argument thus depicts access to information as contributing to environmental protection through the pressures of environmentally conscious citizens; this is said to be an efficient way to contribute to environmental protection, as the state achieves this level of environmental protection through a low-cost regulation.

The second argument on the grounds of efficiency justifies access to information in terms of a cost-effective way for the polluting businesses to contribute to environmental protection (Haufler, 2010; Gupta and Mason, 2014a). More specifically, by voluntarily disclosing information about the environmental impacts of their own activities, and showing their commitment to the environmental cause, these firms seek to avoid more stringent mandatory regulations on the part of states and international institutions. A correlation between voluntary commitments and lower regulatory standards has been witnessed with respect to internal certified auditing systems – such as ISO 14001. In particular, companies with certified auditing standards are less frequently subject to inspections (Mol, 2008: 171; Stevens, 1999: 79). Without stringent regulations, firms have more room to choose by themselves the most cost-effective

options to reduce pollution without being required to employ any specific technology to do so, meet any specific timetable, or comply with any specific quota of abatement.

For this strategy to work, however, there first needs to be a gap between the expectations of the stakeholder and the intentions of a legislator. The environmental performance of the polluting firm has to be virtuous enough so that the environmentally conscious stakeholders will not react in the marketplace by changing consumption patterns or turn to the legislators for stricter regulation, but not so virtuous to the extent that the firm incurs in costs comparable to those it would incur under regulation. Second, the costs of gathering and reporting information need to be low: indeed, in some cases also the controlling of types and amounts of pollutants released requires costly technologies (Graham, 2002). Third, the risks of unintended use of information need be low as well: as the amount of pollution released is often a good indication of the efficiency of a production process (Porter and van der Linde, 1995b: 105), publishing this information – when not already prohibited by competition law rules – might reduce or eliminate the competitive advantage of a firm against its competitors, and it might trigger corporate spying. However, if the strategy works, firms are free to reduce their environmental impacts in a flexible manner, whereas the state achieves the low monitoring and enforcement costs linked with disclosure policies.

There is one major argument on the grounds of justice underpinning the right of access to information, which justifies access to information with reference to personal autonomy. Much like the right to be informed about possible risks before undergoing a medical operation, access to information in the environmental domain, such as being informed about the amount of arsenic in drinking water, is grounded on a principle of autonomy or self-determination, i.e. the capacity to reflect, endorse, and act upon our own values and commitments. Withholding information might violate a person's autonomy; this happens when a person's decision under full information would have been different from the one taken under partial information. A person willing to relocate if arsenic in the drinking water of her area surpasses a certain threshold might see her autonomy violated if the information that certifies that the water does indeed present certain dangerous level of arsenic is withheld. For most people, paternalism, the idea that someone or something – like a state – interferes with us and does so for our own good, is disturbing precisely because it interferes with the idea of autonomy that we so highly hold in esteem. The idea of autonomy as a value is at the center of disparate philosophical traditions at the basis of liberalism. Two names may suffice: John Stuart Mill, who considered it 'one of the elements of well-being' (Mill, 1859), and thus worthy of being maximized, and Immanuel Kant (1788), who built his moral edifice on the capacity of human beings to freely use reasons to choose their own actions.

Finally, there is a pragmatic rationale which justifies access to information with reference to participation in politics, as opposed to market participation. This is what is meant by 'ancillary': to be an active citizen and be able to fully participate in the political life of one's own community and the decisions affecting one's own environment, one needs to be informed about such matters. As such, there is not a direct connection between access to information and environmental protection; the

relationship between the two is mediated by what access to information contributes to in terms of a participatory decision-making process.

The linkages between information and participation are multiple, complex, and important, therefore it is necessary to map them out clearly. There is an efficiency rationale behind access to information which is instrumental to what I have earlier called the marketization of participation. In other words, accessible information displayed through ecolabels and pollution inventories is useful in driving customers to greener spending habits and firms, reacting to the mood of the citizens on matters related to the environmental impact of their operations, to greener production processes. There is a pragmatic rationale behind access to information which is instrumental to more meaningful forms of participation - compared to market participation - which are what I called participation as conveying information and participation as presence. Both these forms of participation require that citizens have access to information before being in a position to meaningfully interact with decision-makers or participate themselves in the decision-making process.

The following figure summarizes the multiple linkages among the various components of the narrative of public participation and also anticipates some of the arguments that will be developed below.

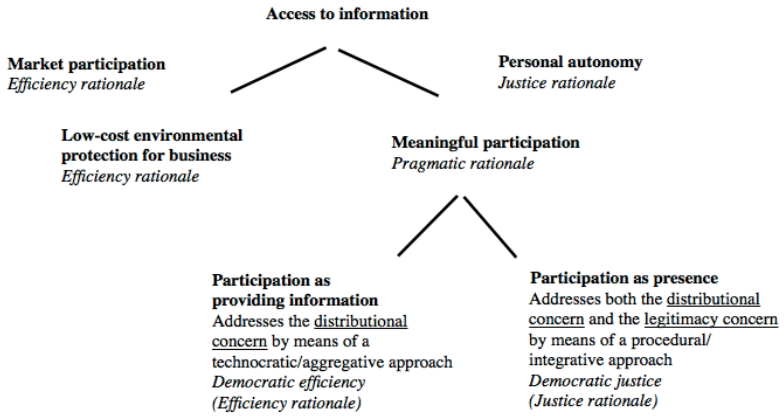

Figure 3.1 - Summary of civic environmentalism's multiple linkages.

The normative presuppositions behind the two drivers for participation

After having reviewed the presuppositions informing the right of access to information, which supposedly is ancillary to participation, but, as we have seen before, it has become an instrument for environmental protection on its own, let's now turn to participation - strictly speaking, *meaningful participation* in the figure above - and to

the analysis of its normative presuppositions. What is interesting to analyze at this point is - first - whether the two ideas of participation in environmental governance, i.e. participation as conveying information and participation as presence, are the products of separate and different normative presuppositions, and if so, of which? Secondly, are the normative ideas informing mechanisms of participation fundamentally different from those encountered in the previous chapter?

Let's first start with the similarities between the two ideas of participation and their general presuppositions. Both ideas start form the central tenets of liberalism, yet they end up emphasizing different aspects of it. Liberalism departs from the idea that the main task of any government is to safeguard individual liberties. Furthermore, freedom, and the right to property in particular, is not opposed to equality of men. These are the founding ideas of the liberal tradition. Claiming that the citizens are free and equal means that the interests of everyone are equally important and should receive equal consideration.

It follows from the idea that the interests of everyone should count equally that the only form of government acceptable for this kind of individuals is one in which coercion can only ever be self-imposed: a (liberal) democracy. In other words, those who make the decisions and those who bear the burden to comply with those decisions are the same people. There are at least two different ways of intending democracy: as a method and as an ideal. For example, Friedrich Hayek, while certainly a liberal, was very skeptical of enabling the majority principle - the basic tenet of democracy - to dictate different aspects of a society and believed that individual rights should be protected even against the will of the majority, which at times can be oppressive (Petrucciani, 2003). Hayek implicitly upheld an idea of democracy as a method, i.e. as a simple decision-making tool to aggregate preferences. Others would contend that an oppressive majority is no democracy at all, that whereas democracy certainly means to decide according to the majority principle because it minimizes the number of people that feel coerced by a given decision, mechanisms should be put in place in order not to allow the majority to violate the rights of the minority. Daniele Archibugi, for example, is one of the scholars who claims that a commitment to democracy means at the same time respect for a set of individual rights, much broader than property rights alone; in other words, for him, democracy is an ideal of communal and participatory living (Archibugi, 2008). While both ideas of democracy remain true to democratic liberalism by upholding both its founding principles - liberty and equality -, they operationalize them in different ways. According to the aggregative model, citizens are primarily voters, and the "type" of equality that matters is the equality of votes: one vote, one person. Equality of votes presupposes equality of preferences. As a consequence, liberty is framed primarily as the *lack of* impediments in forming and putting forward one's own preferences. According to the participatory model, the reverse is true: the voters are primarily citizens, i.e. people embedded in a social environment which gives rise to rights and duties that go beyond simply voting. The equality that matters is the one in the *process* of decision-making, and in which participating in decision-making has a political value of its own. The process of decision-making can be characterized

narrowly - one that takes place only in the decision-making institutions - or broadly - deliberations in public places. In either case, if equality in the decision-making process has to be realized, it follows that not only everyone should be allowed to do so (lack of formal impediments) but also that they have the means (physical and intellectual) to do so.

In modern societies, direct self-government on the model of Greek *poleis* or Italian city-states is not possible anymore - mainly because of the technical difficulties of actively involving large numbers of citizens in making decisions -; some form of representation is therefore needed. It follows that a perfect identity between decision makers and bearers is not possible; however, government through representatives is considered a worthy substitute. Self-government through representatives presupposes a sort of symmetry, not identity, between the decision-makers - those who make the decisions - and the decision-bearers - the recipients of political decisions. This symmetry breaks down when a certain decision has repercussion on people other than those who were allowed to vote or deliberate on that specific issue and when representatives cannot be held accountable by the citizens who put them in power.

Both ideas of participation are a response to the potential failure of this symmetry, which in the domain of environmental politics happens rather frequently. The symmetry might fail when environmental projects are decided extra-territorially and imposed onto a local population, or when the decisions of a neighboring state or region have cross-border repercussions. By participating in the management of a specific project, a local population could redraw the geographical boundaries of political decisions. The symmetry can also fail when there is a cushion between the voters and the decision makers, such as in the case of the forestry bureaucracy introduced above. But the same also applies to the professionals working in the environmental institutions such as the various environmental agencies or bodies of the UN (e.g. UNEP, UNECE, UNFCCC, and many others) and to country representatives, which can or cannot be elected, but who are in any case very politically distant. If to this we add the ongoing trends examined above about the technification of the bureaucracy, then we have finally come full circle and we can begin to understand why more participation might eventually contribute to redrawing the boundaries of the political discourse, i.e. to guarantee that a group of people affected by a political decision recognize their normative ideas being at least considered during the decision-making process, and ultimately to increase the legitimacy of the environmental institutions by contributing to design new redistributive policies.

In the remainder of the chapter I am going to argue that while both ideas of participation are rooted in democratic liberalism - as they both try to reestablish the symmetry between decision makers and subjects - they uphold different versions of it: participation as conveying information as a response to a deficiency of inclusiveness in the economy is more directly linked with an economically inspired aggregative model of democracy, whereas participation as presence as a response to procedural unfairness, with the participatory model of democracy.

Participation as conveying information: the idea of democratic efficiency

The first driver of participation - participation as conveying information - is informed by the idea that, by directly involving the people impacted by a project, the symmetry between decision-makers and bearers can be reestablished. Secondly, there is the idea that more and better information about the impact of a project or a policy will translate into a less inequitable project or policy. I start from the latter and work my way toward the former, to eventually argue that the mechanism of participation as conveying information is driven by the idea of a democratic aggregation of preferences grounded on the tenets of Rational Choice Theory.

There are two elements behind the idea that more and better information about the impact of a project or a policy will translate into a less inequitable project or policy, and which need be analyzed separately. Firstly, there is the idea that asking the people directly impacted by a project will provide decision-makers with more and better information; it is about the *quality* of the information. Secondly, there is the idea that this will prove useful for designing less inequitable projects and policies; it is about *use and usefulness* of the information. The idea that most of the time high-quality information on how a project or a policy will impact a community cannot be conveyed by anyone else other than the people of that very community has to do with the fact that information is a sort of value-laden testimony. In other words, to say that a project will impact a community in a certain way, one has to know the practices of that community, what its people place value on, and only after having gained this knowledge can one characterize certain impacts as bad, good or neutral. Whether an external project evaluator could come up with such testimony is uncertain, but in any case unlikely given the constraints they usually face, such as strict "terms of reference," which already establish which information is required, tight deadlines and tight budgets (Goldman, 2004: 55). There is often a trade-off between the quality of the information and the costs of acquiring such information when this task is delegated to project evaluators.

The idea that better information will translate into better decisions constructs inequitability as a sort of coordination failure among different actors due to information gaps, only requiring more inputs and corrections, not a radical rethinking of the approach; what Bäckstrand and Lövbrand (2007) aptly called the idea of "democratic efficiency." However, even if inequitability was indeed a sort of technical problem only requiring better inputs, its solution would still depend on a number of conditions: (i) whether the underlying interests of the participating people providing information and those of the decision-makers truly match; (ii) whether the decision-makers use the information provided; (iii) and if so, how they will use it. Each of these conditions offers a possible point of departure for decision-makers to falsify the equation that sees more and better information as a recipe for more equitable policies and projects. The first point, in particular, is problematic, as the interests of the participating base and those of the decision-makers are often not the same; the latter sometimes have to take

into account the interests of a wider segment of the population who might benefit from the project. A clash between different interests might happen in "all-or-nothing situations," when a project cannot be made more equitable by additional investment. In these cases, the simple fact that a project is carried out will dramatically and irreparably impact the livelihoods of certain communities while benefiting others. Large dam projects such as the famous Nam Theun 2 in Laos, which sometimes require the resettlements of entire villages, are a concrete example of this type of situations (Lawrence, 2009).[11]

There are two possible ways of framing what is at stake in an information gap: first, decision makers lack the informational requirements to put forward more equitable policies. This is an epistemic problem. Second, people with the necessary information are not allowed or are somehow unable to deliver their information. This is a technical problem. This second sense of "information gap" is what makes policies undemocratic, i.e. what makes the symmetry between decision makers and bearers fail. Often, the two go together: when policy makers lack information because those who could provide it are unable to do so.

Participation as conveying information supposedly corrects the inequitability of a certain policy by reestablishing the symmetry. But if this is the case, then participation as conveying information presupposes a particular idea of what it means to participate: it means to give someone else the means to make the decisions which satisfy people's preferences. Participation in this sense is best framed as an aggregative model of democracy, i.e. the idea that citizens express their own preferences on how they would like the common resources to be managed. If all the people affected by a decision are allowed to express their preferences, and these are aggregated according to the principle that everyone counts equally, then not only the democratic symmetry stands (I assumed this by saying "all the people affected by a decision") but also the choice following the aggregation will be automatically equitable. This is what follows from constructing inequality as an epistemic problem whose solution requires more informational inputs, and as a technical problem whose solution requires channeling those informational inputs.

There are two problems with this approach to participation. The first is that the society's arrangements which emerge from this way of intending public participation will always be the result of power and numbers instead of civic deliberation. I specify three occasions in which this might happen. In certain cases, political decisions will be the output of the preferences of a majority. A majority is not necessarily oppressive, it could, for example, institute guarantees for minorities. The problem with this, however, is that the majority might do so by resorting to their private reasons and values, which might not make much sense to those who are affected by these guarantees, and thus risk feeling disenfranchised from the community of which they are part. In certain other cases, majorities are not rock solid and the democratic alternation and fragmentation

[11] The official documents and reports of the Nam Theun 2 World Bank project can be found at: http://documents.worldbank.org/curated/en/docsearch/projects/P049290 (Last accessed May 2017).

guarantee that a large section of the community has a say in policy-making through log-rolling. Log-rolling is the widespread practice of exchanging votes by legislative members in order to enact the proposed legislations of each separate member. Yet again, this is far from ideal, because it is not clear how a certain piece of legislation enacted in this way is to be justified. As a consequence, the different private reasons to support the policy have nothing to do with the standard of justification which should be ideally employed in politics. In other words, there might not be a coherent story which justifies the enactment of the policy, and some strategic supporters might not even want their names associated with it. And finally, on certain other occasions, there might even be a sort of overlapping consensus when different parties genuinely support a policy for their private reasons. This scenario is undoubtedly the most appealing among the three surveyed, but it opens itself to the criticism that the policy thus approved still lacks a coherent justification. Sunstein argued that in these cases the justification for a policy might be "incompletely theorized" (Sunstein, 1994) because the different comprehensive doctrines upon which the different parties rely in order to justify the policy cannot be brought into relation with one another in an exercise of mutual justification which can be bestowed upon the community as a whole. These three cases tell us that political decisions arrived at through the aggregative method are justified by resorting to the private reasons of the majority - stable or temporary - of the participants. This, once again, opens up a problem of legitimacy of the policies. Or, to put it differently, we cannot rely on this model to solve the legitimacy concern identified at the outset of the chapter; this is why the model of participation as providing information can at most be a solution to those sorts of distributional problems which are not too controversial and where the very definition of what counts as equitable is not debated. We will see in the following section that the model of participation as presence aims to correct these shortcomings by subjecting policy decisions to the requirement of public reason.

The second problem of intending participation as conveying information is that the aggregative model of democracy which underlies it shares with neoclassical economics the rational choice model of explaining social behavior: human are rational, they have preferences, and they choose and act according to them. But if this is so, then there is nothing in principle that might impede rational persons to look for other means to satisfy their preferences, instead of relying on politics through democracy. The idea behind the great liberalizations of the '80s - from shifting certain main services from the public to the private domain - stems from the notion that there is no salient difference between different ways of satisfying preferences, as long as they get satisfied. Indeed, what compels certain states to retain certain services within the public domain is not the fact that the state provision of these services is to be preferred on the grounds, for example, that it creates social cohesion, but rather the mere awareness that sometimes people lack the means to acquire these services and satisfy their preferences if they can only be accessed through the market. Incidentally, this is why the correction of certain imbalances created by market-based mechanism has to be subjected to political

deliberation and cannot be simply internalized into economic theory as welfare economists would like.

Let us take a standard case of social cost imposed onto a local population by a firm which pollutes the waters in a certain geographic area. According to economic theory, if the local population is entitled to clean water, then it can make the polluting firm internalize the cost of polluting the waters either through compensation or by going to court and asking the firm to install filters or making it relocate. All of this, however, presupposes that the local population has the time and money to force the polluting firm to internalize its social costs. If this is not the case, perhaps because of wide disparities in power, money, and (legal and economic) knowledge between multinational corporations and developing countries' local populations, then the inputs of the local population simply do not come with a dollar symbol attached to them. And in a profit-driven environment, these inputs risk being systematically overlooked.

While participation as conveying information already goes some way in preventing that policy outcomes mirror the distributional imbalances produced by market-based mechanisms, because it subjects these policies to a strict egalitarian test - one person, one vote -, it cannot, however, dispel the more subtle ways in which policymaking gets biased: through agenda setting, through the input in the decision-making process of privileged epistemic communities, or through the crafting of the very procedures used to aggregate the preferences. If not channeled politically through mechanisms of political deliberation, the inputs which people can bring by providing information to the policy-makers can seldom correct the inequalities created by market mechanisms.

Participation as presence: justice as procedural fairness

The idea that democratic deliberation channeled through just procedures is capable of making the perceived interests of the individual people and the real interests of the society at large converge is the second driver of participation - participation as presence. Redistributive policies which are the outcome of this process of procedurally just democratic deliberation are thus also equitable. These are the central tenets of Rawls's theory of justice; in the following section I reconstruct Rawls' theory (1971; 1993) and I will explain why it is relevant to understand the normative presuppositions supporting participation as presence.

Apart from the procedural approach to justice, there are also other reasons why Rawls' theory of justice ably represents the underlying normative commitments of those positions in environmental politics which see public participation as a possible solution to the imbalances created by market mechanisms and market-mimicking policies. First, his research, throughout his entire life, embodies the commitment to hold together both the normative goals of efficiency and justice to the point of being ambivalent about them (I will come back to this in Chapter 4). This resonates among the proponents of civic environmentalism: like Rawls, they do not want to do entirely away with

efficiency-producing market mechanisms or policies, but instead want to find a social arrangement in which such mechanisms and policies, along with their shortcomings, are subjected to political deliberation, in order to serve the social good of the community. Second, similarly to Rawls, their approach to increasing participation is best understood as instrumental to the realization of a shared idea of communal living and not as an end in itself; in this case, a shared idea of equitable environmental protection.

Participation in terms of presence as a potential solution to both the inequalities generated by market-based mechanisms and the undue influence of efficiency-based arguments in policy-making operationalizes a different and much thicker understanding of the political equality of citizens in the decision-making process: not simply having an equal right to vote and provide information when required to do so, but also equality in the deliberation process. I use a metaphor to illustrate the difference between the two approaches to decision-making equality. Votes and information are the hard data of politics. They can be quite straightforward, such as in referenda, or they can be messy, such as election votes in a multi-party system. When they are not messy, they accurately track the citizens' opinions on a policy, this is the case of a yes or no referendum on, for example, nuclear power plants (here, of course, one needs to assume that the referendum question is not voluntarily formulated in ambiguous terms and that access to accurate information has been provided). From non-messy data, it is easy to extrapolate information. When they are messy, a similar straightforward inference cannot be easily made. In a system with a right and a left party, far-right and far-left ones, and a green party, the citizens' opinion on nuclear power plants is dispersed. A green party voter might be favorable to nuclear power but decided to vote green because she has at heart animal welfare. Similar mismatches are frequent in nation-wide elections. In these cases, to get from data to knowledge of what are the people's opinions on certain policies, data need to be manipulated, and information constructed. Deliberations within the democratic institutions is the data manipulation of politics. Equality in "data manipulation" presupposes that a person is given the formal and substantial means to contribute to the extrapolation of information from data; in other words, if an active role for citizens within the decision-making institutions is sought, then it needs to be facilitated by formally opening the doors of the decision-making institutions and through some redistribution along the lines of social welfare states (Rawls went further still, and argued in favor of a property-owning democracy).

In pluralistic societies, however, straightforward inference from votes is very rare, and some form of "data manipulation" is, therefore, a constant feature of our political systems. Albeit the proponents of both models of democracy - aggregative and participatory - recognize that they have to deal with this simple fact - Rawls called it the fact of pluralism - they do it differently. The fact of pluralism is that in big, complex, and modern societies it cannot be expected that everyone agrees on just one shared set of values. From the point of view of preference aggregation, pluralism manifests itself when a vote does not produce a clear winner, in cases, for example, in which there are not single-peaked preferences. These types of situations are usually dealt with more refined procedures (different rounds of votes), log-rolling, or, in some cases,

gerrymandering. The scholars who subscribe to political liberalism take pluralism more seriously: as something that does not go away by redefining the rules of the game; people have to learn to live with it. Taking pluralism seriously means that sometimes certain sets of values cannot be reframed in the vocabulary of another's comprehensive doctrine. For example, the strong egalitarian bent premised on human dignity of the positions that criticize the inequality produced by market-based mechanisms to achieve environmental protection cannot be easily reconciled with the welfare economics underpinning of these mechanisms. How then can policy makers arrive at implementing any contested policy?

Rawls responds to this impasse with a two-pronged theory: first, he needs to clarify the nature of the challenge that liberal democratic institutions face when there are contrasting ideas about the principles which should guide policy-making; second, he has to devise a procedure in order to determine what goods an ideal community of people with differing comprehensive doctrines places value on, and how to distribute them. The first prong is Rawls' theory of political liberalism; the second is his theory of justice as fairness.

Rawls argues that a diverse citizenship holding several different comprehensive doctrines (i.e. values and ideas of what is good) could live side-by-side within a liberal state on condition that the rules of the state can be justified by resorting to arguments and ideas which those citizens could reasonably endorse (this is the requirement of public reason mentioned earlier). Given that no comprehensive doctrine could provide such arguments and ideas, Rawls turns to the public political culture of the state to find them. The public political culture of the state is written into the very institutions which the state has decided to give itself over the years, in the founding documents, texts, and speeches which have become common knowledge of its population. The Gettysburg Address - which young Americans learn by heart - can be considered one of such speeches which nicely capture the public political culture of the American democratic society. According to Rawls, the public political culture of a democratic society features three fundamental ideas: that citizens are free, are equal, and that society should be fair. These three ideas form what Rawls calls a political conception of justice, which is what each person, while pursuing her specific idea of the good, could be expected to reasonably endorse. Already, this political conception of justice puts some constraints on the design of the democratic institutions: according to Rawls, for example, basic health care for all citizens is a non-negotiable aspect of institutions modeled after the liberal political conception of justice.

Now that a framework has been created within which citizens can meet on common ground - i.e. the political conception of justice -, Rawls can begin to answer a new set of pressing issues with which democratic societies have to deal. Given that the institutions of a society have a pervasive influence on the life of the citizens because they distribute benefits and burdens, what kind of just institutional design does the political conception of justice give rise to? Rawls respond to this challenge by arguing that cooperation among the citizens should be fair to all, and called his theory *justice as fairness*. Rawls' idea is simple and powerful: there are many individual traits which

have no moral worth which nonetheless influence massively the prospects of life of the individual holders, such as one's sex, race, or inherited social status. On the other hand, there are things in life that are more important than the welfare of the society. Even if it could be shown that a racist or sexist society could maximize utility, this would not be a good reason to promote policies which curtail the basic rights of the individuals: it would not be fair to everyone.

In order to define the design of just institutions of a society, Rawls begins by assuming that social cooperation among the citizens is possible and necessary (he follows Hume's circumstances of justice): although there are enough resources for everyone's most pressing needs, there are not enough for everyone to lead decent lives; as a consequence, how the fruits of cooperation are distributed is not unimportant, and a liberal theory of distributive justice is supposed to come up with a system of distribution which is fair to citizens which are free and equal.

As we have seen, what is morally arbitrary, according to Rawls, should not determine how well a person do in terms of primary goods, which are "things that every rational man is presumed to want" to further one's own ends in life. But what is a morally arbitrary source of inequality? Rawls reviews three possible alternatives of justifying inequalities in the distribution of primary goods, and hence of defining what is morally arbitrary: (i) the system of natural liberty, (ii) liberal equality, and (iii) democratic equality. The first of these alternatives traces the idea of equality enshrined in libertarian theories of justice where equality means to have the same legal right of access to all advantageous social positions. The problem with this idea, and in general with libertarian theories of justice, is that the distribution of resources at any given period is affected by the initial distribution of assets at the beginning of that period: we thus have a stratification of past events and contingencies that determine future distribution of goods. The second alternative views equality in terms of the idea of equality of opportunity: persons with similar characteristics, talent and ability, dedication in and commitment to using those talents, should have the same opportunities in life no matter their initial starting point in terms of culture and income. Rawls clearly writes that "the expectations of those with the same abilities and aspirations should not be affected by their social class" (Rawls, 1971: 73). And yet, this idea of equality of opportunity can only ever be carried out imperfectly because there is a further element which is beyond any person's control: talent and abilities are not equally distributed. This deeper sense of what counts as morally arbitrary is captured by the third alternative: democratic equality. Democratic equality expresses the idea that sometimes it is precisely the natural lottery in charge of distributing genetic endowments that matters the most in how a person will fare in life. If everything which determines unequal outcomes in life is then morally arbitrary - respectively (i) previous distribution, (ii) favorable home and social class, and (iii) genetic endowments - then nothing but equality can be allowed in the distribution of primary goods. In other words, given that everything that leads to inequality in life is not deserved, then there is a presumption to treat everyone as fundamentally equal, which leads to an equal distribution of resources.

Rawls treats this equal distribution of resources as a baseline: different distributions of resources are possible provided that everyone stands to gain from the new distribution. Rawls in this respect is clear when he says "injustice is inequality that is not to the benefit of all" (Rawls, 1971: 62). According to Rawls, departing from an equal distribution, it is possible to push forward the Pareto frontier, i.e. to have gains without someone being made worse off. Then, the so-called difference principle is helpful is choosing a specific point on this Pareto frontier. These ideas are built into the two principles of justice, which are the guidelines to the just institutions of the society:

(i) Each person has the same indefeasible claim to a fully adequate scheme of equal basic liberties, which scheme is compatible with the same scheme of liberties for all;
(ii) Social and economic inequalities are to satisfy two conditions:
    (a) They are to be attached to offices and positions open to all under conditions of fair equality of opportunity
    (b) They are to be to the greatest benefit of the least-advantaged members of society (the difference principle) (Rawls, 1971: 42-43)

These principles are formally justified by resorting to the fictional situation of the original position. In a move which epitomizes Rawls' procedural approach to justice, Rawls claims that fair terms of cooperation among citizens - i.e. the two principles of justice - are those that would be chosen by free and equal citizens under a set of idealized fair conditions. In other words, asking directly what are fair terms of cooperation would be too contentious and our intuitions too unreliable. It is better to approach the question from a procedural point of view.[12] The veil of ignorance under which free and equal citizens are to be placed is the artifice which guarantees that arbitrary factors could not unfairly influence the deliberation among the parties in the original position and that they are not biased towards their interests. Among other things, the citizens under the veil of ignorance do not know their race, income, gender, age, talents, the type of society in which they are in, etc. The two principles are chosen in the original position because they ultimately represent an overlapping consensus among comprehensive doctrines of the good, justified through the requirement of public reason.[13]

The normative presuppositions of political liberalism and justice as fairness inform the idea of participation as presence at the decision making table. Just political decisions cannot be the product of opaque considerations internal to specific epistemic communities, but rather of democratic discussions among parties who meet under fair

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[12] This is far from being an uncontentious move, we will see in Chapter 5 the inherent problems of the procedural approach to justice.

[13] It should be noted that this represents a significant departure from Rawls' own earlier position - as expressed in *A Theory of Justice* (1971) - according to which the two principles are justified by resorting to the reflective equilibrium type of justification. The position Rawls takes in *Political Liberalism* (1993) thus moves away from the possibility of justifying political principles and arrangements by resorting to true comprehensive doctrines of the good.

conditions of deliberation. These political decisions are justified against the standard of the political conception of justice and by recurring to the requirement of public reason. What differentiates Rawls' public reason approach from the economically inspired models of aggregative democracy is the fact that the political process is understood as a search for the common good of society, instead of a struggle for power among rival groups, each with particular interests. In this sense, the political process is one of integration - rather than aggregation - of preferences, desires, and values of the participating individuals. What is at stake in this integrative model of democracy, which subtends participation as presence, is putting to the test, in processes of mutual reason-giving, individual perspectives on the proper orientation of collective action. Now that managing and protecting the environment has wide social implications - environmental policy creates winners and losers -, these issues are rightly seen as pertaining to the realm of public deliberation. These distributive justice issues related to the environment become part and parcel of asserting and articulating the common good of society. Furthermore, one of the salient features of the integrative model - one frequently cited in the literature on deliberative democracy (Bohman and Rehg, 1997: xiii) - is the educational aspect of the process of mutual reasons-giving. In other words, by collectively deliberating on the distributive merits and demerits of various environmental policies, citizens develop a culture of sustainability; this, in turn, will guarantee that the adopted policies have a greater degree of compliance. This would allegedly work toward bonding the community together instead of dispersing it into ever more polarized rival groups.

A concrete example in which these specific ideas of public engagement and deliberation - participation as presence - have been implemented, along with their policy outcomes, is provided by Richard Kuper (1997). Kuper studied the case of waste management in the Hertfordshire County in 1996. The Labour-Liberal Democratic administration of the County assembled a citizen jury in order to help the administration decide which type of waste management strategy was more appropriate for the County: incineration, landfill, recycling, etc. The 16 members of the jury had been selected among a random sample of 3000 citizens. After the various options for waste disposal had been presented by experts drawn from the private sector, academia, environmental activism, and government, the jury agreed that recycling was recommended, incineration was seen as second best and recommended only in case the recycling strategy failed; landfill disposal was discouraged. Witnessing this process of public deliberation at first hand, Kuper argues that engagement with the public generates enthusiasm around the issues debated and commitment to the policy proposed (Kuper, 1997: 150). Julian Agyemen and Briony Angus (2003), who provide a review of the role of citizen participation on the resulting sustainability of local communities, found these positive consequences to be a common feature of policies of public engagement and deliberation.

At the end of this chapter it is appropriate to take stock of the various reasons behind participation as presence, and, to do this, it is appropriate to go back once again to the shifts in international environmental politics that are associated with the narrative

on public participation. New momentum was given to this narrative at the beginning of the '90s, and we have seen above how the Earth Summit institutionalized it through the Major Groups institution and Principle 10 of the Rio Principles. Two events, in particular, enable us to historically situate the narrative and why it gained momentum so quickly. The first one was the publication of the infamous Summers memo; the second, the opening of a new season in international environmental politics, one that pits North against South instead of East against West. The Summer's memo (see the previous chapter) made patent that there was an elite pushing international environmental politics that was so sheltered behind a specialized knowledge and language as to being detached from common sense. The same feeling of detached knowledge monopolized by efficiency arguments came out again and again during the debates over the value of a statistical life in the Second Assessment Report (SAR) of the IPCC.[14] These issues were not felt as unimportant legitimacy concerns but rather as potentially having a profound distributional impact on environmental politics. All the more so if one considers that the new North vs. South season in international politics officially inaugurated a dynamic by which states are divided in terms of their capability in economic terms to contribute to climate mitigation. Depending on the different estimates of, say, the value of a statistical life, more, less or no money at all need be transferred from rich to poor countries. In other words, specialized, partial, and unequally distributed knowledge started to be considered a powerful instrument by which a state could potentially free ride on the commitments taken, thus opening issues of both distribution and legitimacy within the international order. This created the drive to "occupy" these institutions by bringing more lay people, NGOs, and local actors into the environmental institutions to embed these specialized and detached discourses into a wider framework in which policy proposals are subjected to procedurally just and open public deliberation.

CONCLUSION

It is still too early to draw conclusions that go beyond the scope of the present chapter, but some important elements have already emerged that can help explain why, from the point of view of both efficiency and justice arguments, the narrative of civic environmentalism represent a sort of intermediate ground between the other two narratives, namely, ecological modernization and radical environmentalism. Mechanisms of public participation act as a corrective to efficiency arguments which sometimes can generate unequal distributions of wealth and natural resources (the distributional concern). They do so, on the one hand, by providing information that is irrelevant or not available from the perspective of market-centered decision making, i.e. what I have called participation as providing information. However, this model of participation, grounded upon the aggregative model of democracy, also has some

[14] A good reconstruction of the events which led to the SAR controversy and the controversy itself is provided by Bernie Lewin (2013).

intrinsic limitations: it remains locked into the Rational Choice Theory understanding of human behavior and, as a consequence, political decisions remain the outcome of numbers and power, and the decision-making process remains hostage to the substantive value commitments of specific epistemic communities which have privileged access to the decision-making process. On the other hand, the model of participation as presence at the decision-making table - whose core tenets and normative presuppositions are to be found in the theory of political liberalism - can offer a response to both the distributional and legitimacy shortcomings left unaddressed by the more technocratic approach to participation (i.e. as providing information). It does so by intending participation as the practice of subjecting political decision to open and fair public deliberations, and to a process of mutual justifications aimed at forming an overlapping consensus among the various comprehensive doctrines of the good. This approach to public participation is thus able to dispel both the concerns identified at the beginning of the chapter: the distributional concern and the legitimacy concern.

There is another sense in which the narrative of public participation can be said to represent a middle ground between the efficiency-focused narrative of ecological modernization and the anti-growth sentiment expressed by the radical environmentalists. The normative presuppositions behind the model of participation as presence - Rawls' theory of political liberalism and justice as fairness - do not claim that considerations of efficiency should never be used as rationale for allocating resources; and, as a matter of fact, efficiency remains an important element of justice embedded into the difference principle; yet, within Rawls' distributive edifice, the efficiency rationale is subjected to deliberation, and it is not surreptitiously slipped into policy-making through the privileged access of specific epistemic communities to the decision-making table. We will see in the following chapter how this aspect of the normative presuppositions behind the mechanisms of public participation - i.e. not moving decidedly away from an efficiency-based distributive system of justice - is a contentious point for radical environmentalist scholars.

CHAPTER IV
THE NORMATIVE PRESUPPOSITIONS UNDERLYING THE NARRATIVE OF RADICAL ENVIRONMENTALISM

Radical environmentalism is as old as Western environmentalism itself. According to the contemporary categories, Western environmentalism was born "radical" and then progressively de-radicalized as the voices, ideas, and ideologies that raised the original demands for environmental quality have been pushed to the fringes of a bigger discourse on the state of the environment which grew over the years. But then "What's in a name?" What makes radical environmentalism radical? To what and who do we award this label, at least in the environmental domain? To answer these questions, it is not necessary to go back in time and trace the modern history of the Western environmental movement, when it was born, when it changed, and when the radicals started to be addressed as radicals, and why. For the purpose of this chapter, *when* precisely the environmental narrative changed is less important that the fact that indeed it changed. Following Andrew Hoffmann (2001), this change can be summarized with only two specific events that well represent this rupture, without going into the finer historical details. The first, a survey among US companies in 1974, found that the majority of companies "treat pollution control expenditures as non-recoverable investments," and treat environmental management as a threat (Lund, 1974: 2). Two decades later, in 1995 - the second event -, Porter and van der Linde argued that environmental management could be viewed as an opportunity for firms to increase their competitive advantage (Porter and van der Linde, 1995a; also in Chapter 2), and indeed in 1991 a similar US survey to the one made in 1974 showed that US companies were starting to integrate environmental management into their operations (Morrison, 1991). "From heresy to dogma," this is how Hoffmann describes this rapid shift: the heresy of thinking that environmental expenditures could be compatible with firms' profitability, to the dogma of thinking that firms profitability cannot be achieved without a fundamental greening of industrial practices.

The story of how this shift came about is now a reassuring refrain: from Carson's *Silent Spring* in the 1960s, passing from the Blue Marble - the first picture of the Earth from space -, the Club of Rome *Limits to Growth* study, and the Stockholm Conference in the 1970s, to the Earth Summit in the early 1990s; it is the story of the awakening - fast or slow, according to the point of view - of the environmental conscience, which is now a force to be reckoned with. Throughout the 1960s and 1970s, environmentalism itself was radical, because the main understanding of it was that it could potentially impose losses on polluting firms; environmental concerns and firms profitability were

seen as a zero-sum game. When the main environmental narrative changed in the 1980s, the idea of win-win scenarios gained ground and "sustainable development" became a catchphrase, environmentalism lost its radical edge, and the radical label has since been attached only to those positions that still cling to the idea of a zero-sum relationship between the environment and the market. In one clear sense, "radical" is then used in opposition to a set of fairly stable interests within society that want to maintain the primacy of economic growth among other policy objectives, and believe in the idea of economic growth as a recipe that will eventually cure all social "diseases," from environmental degradation, to poverty, lack of education, and gender gap. Radical environmentalism thus comprises both the earlier environmentalism that was critical of the environmental effects of unregulated or poorly regulated economic activity - the case of carcinogenic pesticides is an oft-quoted case thanks to Carson's popular book (Carson, 1962) - and the more recent group of environmental stances that are critical of win-win narratives and market-friendly environmental protection.

"Radical" is not only used to refer to a set of environmental concerns which are critical both of market-induced pollution and of market-driven environmental protection, but also refers to the *intensity* of this criticism. In particular, since the 1960s, the idea that the environmental threat is essentially a distributive problem gained ground. The idea being that environmental problems could be contained if the right people could get hold of the right resources. Pivotal in forming this new narrative have been the works of Coase (1960) and Hardin (1968). "Right people" and "right resources" then receive different interpretations according to the different principles of justice invoked by the market-based environmental protection enthusiasts or their critics. To the former - the enthusiasts -, resources should go to those who are able to squeeze the most profit from them, thus helping the economy and welfare grow; to the latter - the critics -, suspicious of market environmentalism but short of full-blown radicalism, resources should go to those who most need them (where "need" can, in turn, be characterized in a number of different ways). This opposition has played out in a number of different situations in the environmental domain during the years: most notably, within the climate change regime, and earlier in the attempt to create a New International Economic Order in the 1970s, whose flagship achievement was going to be the equitable management of seabed resources (UNCLOS III).

While radicals do not disdain from time to time to couch their positions in the language of distributive justice, especially when it furthers their aims in a specific environmental struggle, they are much more wary of the environmental and social implications of framing environmental problems as distributive issues. It is indeed implicit in this distributive approach (i) to treat resources as commodities that can quickly and easily change hands, and (ii) to take for granted that if something should be (re-)distributed, then it should be made available in the first place. These two presuppositions often go unchallenged both among those who favors market instruments for environmental protection and among those who, while criticizing market distributions, would like to retain the markets' productive capacity and see some other sorts of distribution, more egalitarian ones, such as the polluter pays principle or

common but differentiated responsibilities. In advocating for a stop or at least a serious slowdown of the idea of *managing* natural resources, radical scholars place themselves beyond the liberal positions which support more egalitarian distributions of environmental resources. This chapter concerns the analysis of the two presuppositions (i) and (ii), which can be summarized in terms of commodification and growth. In other words, according to radical scholars, both economics and our theories of distributive justice implicitly treat natural resources as commodities, and implicitly frame economic growth as a policy goal worth pursuing. From a radical perspective, both assumptions are deeply problematic. The chapter will survey how, from the radical perspective, these presuppositions have a negative impact on social and environmental issues.

The chapter is complex and covers a lot of ground; therefore, a few words which introduce how it is structured in its entirety might be particularly helpful to the reader. In the following short section, I review the main positions and movements which can be associated with the narrative of radical environmentalism and I clarify some methodological aspects of the radical environmentalism literature. Then, the first half of the chapter will deal with the issue of the commodification of natural resources. There, I explain that there are two senses in which a natural resource can be said to be a commodity: an economic sense and one implicit in the theories of distributive justice. Radical scholars criticize both these senses of commodification by resorting to a battery of arguments, both consequentialist and deontological. The second part of the chapter will deal with the issue of economic growth. First, I explain what it is about economic growth which particularly concerns radical environmentalists; then, I proceed to survey the ways in which radical environmentalist scholars criticize the normative presuppositions of economic theory which are instrumental to economic growth, along with its centrality in economics; finally, I also survey the stance of radical scholars who criticize the normative presuppositions of liberal theories of justice which are instrumental to the continuing pursuit of economic growth as a policy goal. Throughout, the chapter can be read as a double criticism of the competing environmental narratives in politics. In particular, the criticisms of both the economic sense of commodification and the normative presuppositions of economic theory which are instrumental to economic growth can be understood as a criticism of the narrative of ecological modernization. On the other hand, the criticisms of both the sense of commodification implicit in the theories of distributive justice and the normative presuppositions of liberal theories of distributive justice which are instrumental to the pursuit of economic growth as a policy goal can be understood as a criticism of the narrative of civic environmentalism. As a result of this double polemic focus, the narrative of radical environmentalism can be understood as a range of attempts aimed at reconsidering the role of efficiency and justice in environmental politics. More specifically, whereas ecological modernization and civic environmentalism subordinate nature to human beings for the purposes of their interpretations of efficiency and justice, radical environmentalism claims to forefront nature in a way that (i) calls into question the assumption that efficiency is a core value to be met by environmental policy and (ii) calls for a drastic redefinition of what is to count as justice, inasmuch as justice can no

longer be simply, or solely, conceptualized in terms of *social* justice. However, it is not possible to associate the narrative of radical environmentalism to a coherent competing theory of justice: the various radical positions do coalesce around the rejection of the *status quo* in environmental politics, but, as they are quite diverse - and, at times, inconsistent - in the alternatives they propose, they cannot put forward a common positive theory of environmental justice or a common agenda in the face of environmental challenges. To these various positions I turn now.

RADICAL POSITIONS AND SOME METHODOLOGICAL REMARKS

A short summary of the main positions, movements, and currents associated with radical environmentalism will give the reader a somewhat more concrete idea of what we will deal with in this chapter. In general, given the pervasiveness in our modern societies of both the process of commodification of nature and natural resources and the political role of economic growth, it is no wonder that the radical positions which provide an environmentally-based critique of both these elements end up espousing a profound rejection of what are perceived to be some of the very basic structures of our current societies.

The deep ecology movement, for example, rejects the widespread belief in our society of biological inegalitarianism, that all living things should not have an equal right to life. The creation of the deep ecology philosophy - and, subsequently, movement - is credited to Arne Naess (1973) - he was a philosopher and a quite accomplished mountaineer - who characterized his environmental view in oppositions to a "shallow" one. In particular, he rejected that the environment be a resource for human beings, the pursuit of economic growth instead of satisfying simple material needs, and consumerism in general instead of finding pleasure in simple things (Schnurr, 2011: 100).

Ecocentrism is a more general position in environmental ethics which can be associated with the deep ecology movement, albeit the two are not co-extensive. Like deep ecology, ecocentrism puts forward the idea that intrinsic values do not reside only in humans but also in other entities (Woods, 2011: 116). Ecocentric scholars find intrinsic values in whole ecological entities and natural processes, whereas deep ecologists are mainly, yet not exclusively, associated with biocentrism (value is to be found in all living things). Holmes Rolston III, one of the most well-known ecocentric scholars, argues that humans, animals, and, crucially, also plants have intrinsic value because they have *biological* identities which are asserted genetically over time. He then broadens this logic to ecosystems, arguing that ecosystems, too, have identities - *ecological* identities - which are asserted over time and, hence - in his view -, have intrinsic value. Furthermore, ecosystems and natural processes have to receive moral consideration - according to Rolston III - because they enable species and organisms, which are valuable in light of their stable identities, to thrive. In this sense, also

processes, such as natural selection, and relationships, such as predation, have intrinsic value (Rolston III, 1988).

The ecofeminist positions are grounded on the understanding that the oppression of women and the domination of nature are interlinked (Köppel, 2011: 119). The guiding idea of many ecofeminist accounts is that men dominate the environment as they do with women; and they hypothesize that by getting rid of the patriarchal structure in our economic, political, and cultural systems, also the human-nature relationship will improve. Ecofeminist scholars analyze the linkages between women's oppression and nature's exploitation through historical or symbolic studies. For example, they see a connection in how people talk about nature and women, both being, at times, "wild" or "untamed." Furthermore, they analyze how the texts which give identity to different cultures, such as the epics of Homer, associate women with nature and, by stressing the need to tame the latter, implicitly justify the oppression of the former (Köppel, 2011: 120). By rejecting the *status quo* based on the domination by *male* human beings of the earth, ecofeminists, too, can be numbered among the radical environmentalist positions.

Ecosocialism is an environmental theory which stresses the role of the capitalist mode of production in the current environmental crisis. Ecosocialist scholars use Marxist theories and categories to analyze the environmental conflicts and, as a consequence, their positions are grounded on an anthropocentric understanding of the relationship between human beings and nature. They argue that the roots of environmental problems are to be found in issues of social justice and capitalism's intrinsic contradictions (Foster *et al*., 2011).

The positions associated with the degrowth movement appropriate some of the stances presented above in order to argue that the recipe for environmental protection can only be achieved through the progressive slowing down of the capitalist economy (Latouche, 2005). They share with the ecosocialists the analysis of capitalism and its contribution to the current environmental problems, and with the deep ecology movement some of the solutions to those problems: changing our habits, finding pleasure in simpler things, and steering clear of rampant consumerism.

A series of positions in ecological economics intersect with the radical environmentalist theories and movements surveyed so far. In particular, research in the '60s and '70s on the physical underpinnings of economic processes (Boulding, 1966; Georgescu-Roegen, 1971; Meadows *et al*., 1972; Odum, 1971) still provides much of the background for ecosocialists and degrowth supporters to argue that economic systems should be built in accordance with the natural processes, not the other way round, i.e. adapting natural processes to the necessities of standard economic theory.

While not all of the scholars linked to the positions surveyed here would readily accept the radical environmentalism label - because it comes with a heavy baggage in politics, where calling someone "radical" often means that her positions can be justifiably silenced - it needs to be clarified that "radical environmentalism" is here used as a stipulative definition which groups the various positions in the social sciences which mostly reject the belief that economic growth is a valuable pursuit of politics and that the environment should be used as a resource for human beings.

Three caveats are in order before delving into the normative complexity covered by the radical criticisms and contributions. First, it might seem to be an odd choice to focus on two rather abstract issues such as commodification and growth; are not radical environmentalists after all concerned more with issues of land grabbing, neo-colonialism, and food security, just to list a few examples? They are, but while these issues are expressed in a vocabulary which is closer to real-life problems, they can be subsumed under the more abstract headings of "commodification" and "growth." For example, in the analyses of radical environmentalists, land grabbing in Southern countries can be framed in terms of an adhesion to the economic imperative of *growth* by Northern firms who look at new *commodity* frontiers to accumulate capital. Examples throughout the article will help in bridging the abstract nature of a discussion about the normative presupposition of radical environmentalism with the vocabulary of radicals' day-to-day struggles.

Second, an important element to analyze the place of the radical environmentalism narrative in relation to the other narratives is to understand its "anchors", i.e. states of affair or beliefs that represent the departure point for radical criticisms and contributions. In particular, radical environmentalist scholars maintain that environmental degradation and environmental disasters are real. This acknowledgment is no small thing: accepting that environmental problems are real, and not constructed by powerful actors, means relying on the same scientific knowledge that created the basis for the exploitation of the natural resources in the first place. It is indeed rapid technological progress that first made possible the Industrial Revolution, with its environment-depleting energy demands, which now enables us to study its consequences. Most of the research on climate change is nowadays done through models which try to establish how sensitive the climate is under different emission scenarios and the impact of global warming at different warming scenarios. Forest cover and forest carbon storage analyses are mostly done through remote sensing. Local and indigenous knowledge - officially included in the Fourth IPCC report (Solomon *et al*., 2007: 833) - is only a tiny part of the vast body of scholarship used by radical environmentalists to advocate for more environmental protection.

Third, a note on radical environmentalist's methodology is due. The biggest challenge of all for radical environmentalism scholars is that of destroying the typical inertia that comes with a narrative that is now considered mainstream, such as ecological modernization. In other words, certain ideas are so ingrained in how we perceive the world around us and make sense of it that subverting them is a Herculean endeavor, and often a Sisyphean one as well. News outlets are monopolized by economic data and statements - the dangers and merits of austerity measures versus policies focused on growth, the risks of defaulting on debt, the requests of markets and capital for more flexible jobs, the work of credit rating agencies, etc. - and even our very language is shaped by these concepts, as the verb "to monopolize" shows. The domain of environmental politics is no different: in the generalist press, climate action is mostly considered in relation to points of GDP pledged by the leaders of the advanced economies, and "green economy" is an expression that reminds us that environmental

concerns could be beneficial for economic growth. This incessant juxtaposition between the pervasive role of markets and environmental politics is the reason why most of the "holy books" of the radical environmentalism tradition come from the field of history, or include some historical analysis: Karl Marx's *Das Kapital* (1867), Marcel Mauss' *Essay sur le don* (1925), along with Karl Polanyi's *The Great Transformation* (1944). It is indeed a powerful rhetorical strategy to show that the certain central elements of our society, such as commodity markets, or governments' obsession with the idea of economic growth, which we now take for granted as if they have been handed down unchanged through the generations from time immemorial, actually come from somewhere, a specific point in time and space. These structures were responses to specific changes and pressures in our society. Analyzing these structures through the lens of history makes them less inevitable, and thus more susceptible to be changed if the right conditions are created.

The tendency to adopt historical analysis can be seen throughout the literature: recently the practice of referring to ecosystem services in monetary terms has come under attack using historical arguments. By reconstructing the context in which the notion of ecosystem services arose, Richard Norgaard argues that framing ecosystem services in monetary terms in the early 90s was simply a way to start a dialogue with the decision-makers and make them sensitive to the issue of environmental conservation by using a language closer to the dominant ideology. The act of framing ecosystem services in monetary terms was not initially intended by conservation biologists as an actual step towards the marketization of nature, but only to raise awareness (Norgaard, 2010).

COMMODIFICATION IN ECONOMIC THEORY AND THEORIES OF ENVIRONMENTAL DISTRIBUTIVE JUSTICE

Two senses of commodification

When people speak of "free market environmentalism", "marketizing nature" or "neoliberal environmental governance," they usually use these expressions to refer to the narrative according to which environmental resources can be more efficiently managed through economic instruments which either facilitate the operation of markets (like creating scarcity by fiat through an emission cap) or mimic them (cost-benefit analysis). To do this, the reach of economic instruments is extended to domains not previously touched upon by the "economic logic": air, genetic materials, animal welfare, aesthetic views, etc. It is towards this extension that radical environmentalists point their fingers. Can it be done? Should it done? What does it involve? Let us start from the latter, as it will then be easier to reply to the other two questions.

This extension is what commodification is about and it involves at least four different stages: economic framing, monetization, appropriation, and commercialization (Gómez-Baggethun and Ruiz-Pérez, 2011). The first involves framing the functions of nature in terms of services *lato sensu*, and seeing how they contribute to the well-being

of human beings. This operation "anthropocentricizes" the workings of natural processes; it does so by relating them to our interests and preferences, and it thus makes them intelligible to us. The second consists in attaching a price to those services. The third formalizes property rights in a way that nature's services can be allocated to people. The final stage creates procedures such that the property rights corresponding to nature's services can be bought and sold. In the remainder of this section on commodification I have decided to hold on to Erik Gómez-Baggethun and Manuel Ruiz-Pérez's four-stage analysis of commodification, even though it is not uncontroversial. A first objection is that if one understands the services provided by nature *stricto sensu* as those identified by ecosystem services theory and contingent valuation methods, one could easily reply that nature is and was commodified long before people started to attach prices to it. Second, it could be argued that Gómez-Baggethun and Ruiz-Pérez got steps two forward and four back, and that pricing is unnecessary: all that is needed for commodification is transferrable property rights. Once the rights are in place and markets are available, prices will emerge on their own. That being said, having a separate category for the monetization phase will allow me to survey a contested part of literature which deals with the technical and conceptual difficulties in pricing natural process, functions, and resources.

Sometimes, however, natural resources could be referred to as commodities also in a subtler sense: the one implicit in theories of distributive justice. It is not until very recently that environmental problems have been approached through the framework of distributive justice. Surely, the relationship between man and nature had been explored at length, but never in terms of who should appropriate a certain environmental good or another, let alone on grounds of justice. This simple reflection points to the fact that throughout most of history people were born and stayed in stable social positions: what they were entitled to was unchangeable and dictated either by God or the highest political authority. Indeed, in the Western world, it is mostly with modern representative democracy that citizens started to come to terms with the fact that government decisions could be influenced. This, in turn, created a context in which issues of distributive justice came to be seen as something worth discussing. The distributive issues that preoccupied welfare democratic states at their inception were many - health, education, taxation, industry, pensions - but the environment was not one of them, at least not systematically. That human activities could lead to environmental hazards and environmental degradation was plain for all to see. Tales of human environmental destruction go as far back as the Pleistocene when, according to a popular theory, Australian megafauna became extinct because of the arrivals of early Australian Aboriginals (Diamond, 2005). Vittoria Calvani and Andrea Giardina (1979) report that Plinius the Elder noticed how the clearing of forests - conifers in particular - to produce tar used to waterproof boats could have been a cause for floods and malaria in the Roman age. Smog in the cities during the Industrial Revolution, the destruction caused by the two World Wars and the Vietnam War, are just two further more modern cases which come to mind. All these cases, however, called for responses along the lines of restorative justice, if they called for a response at all.

It is only between the 1970s and the 1980s that the issue of environmental degradation was seen through the lens of distributive justice. Two things became apparent: first, environmental inequalities, such as disparities in access to safe drinking water, could be mapped onto the already existing social inequalities (Bullard, 1983). There was something about the environment that was already being implicitly distributed, and distributed along well-known racial and income lines, and this was true both nationally and internationally. Perhaps not incidentally, this is also the moment in which ministries of environment started to appear: it is indeed a quintessential political problem to decide how to distribute and redistribute environmental benefits and burdens; even though the received narrative links the mushrooming of environment ministries with the 1972 UN Conference in Stockholm. Second, at the very same Stockholm Conference, the idea that not every state had the same capacity to tackle global environmental problems started to make the rounds, and therefore a rudimentary - compared with a full-fledged theory of distributive justice - principle of distributive justice in line with what we would call today the principle of Common But Differentiated Responsibilities was then adopted. Indeed, the Stockholm Declaration emphasized the need to consider "the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries" (Principle 23 of the Stockholm Declaration).

It was now on the political agenda, both national and international: environmental degradation as a problem of distributive justice. Philosophers took notice of it. And by the 1990s, environmental distributive justice had become a research program on its own. To systematize the growing literature in the field, Dale Jamieson (1994) distinguished three different ways of understanding the concept of environmental justice, of which only the third fully captures the elements constituting environmental *distributive* justice. The first is the idea that considerations of justice should be extended to environmental entities as well: humans owe duties of justice towards animals, plants, and ecosystems. Put differently, the word "environmental" within the expression "environmental justice" refers to an expansion of the class of the beneficiaries of justice. The second idea points instead to "environmental" as a limiting condition on the pursuit of justice. In this case, while theories of distributive justice continue to deal with the same beneficiaries of justice - humans -, what changes are the conditions with which specific instances of redistribution or restitution have to comply. For example, within this framework it would not be justifiable to redistribute resources from a richer entity to a poorer one if this involves environmental destruction. According to the third understanding of the concept of environmental justice, the environment is a commodity whose distribution should be governed by principles of distributive justice. The actual environment cannot, most of the time, be distributed in a physical manner, but the costs and benefits of its management can.

Viewed through the lens of this third understanding of environmental justice, Northern developed countries incurred in a significant environmental debt towards the Global South: they overused the sinks and input resources such as coal and oil; they reduced biodiversity and threatened the stability of the "spaceship Earth" system. Yet

these are not the by-products of a careless North, but the systemic costs of development. If this is so, and given the pervasiveness of the narrative of economic development shared by both developed and developing countries, a transfer now has to be made; but not along the lines of restorative justice. The representatives of developing countries - except those of small island states and states with very low costal zones, which do actually fear for the survival of their countries - do not think that the clock of development should be turned back, rather they feel that it is now their turn to develop and they should be allowed somewhat looser international environmental regulations to do so. It is now the turn of developing states to use the resources and sinks while the developed ones should pick up the bill for the mitigation and adaptation measures now needed. What is implicit in this idea of environmental distributive justice is that there is nothing peculiar about environmental commodities; like many other commodities they could impose costs and bring benefits. And as such, they could be used to pursue a determinate idea of just distribution. Indeed, although there has been substantial disagreement over the proper principles of distribution, since at least the discussions leading to the Kyoto Protocol the very idea of distribution on the basis of the enjoyment of benefits and burdens of the environmental commodities is not widely contested in the international fora. Contestation at the deeper level of which idea of environmental justice the world leaders should pursue usually stays at the fringes of the institutional debates, and it is usually undertaken by those small island states which do not stand to gain anything from a free pass to development, by the few states such as Bolivia which remained remarkably insulated in respect to the narrative of development, and by NGOs and activists participating at the colorful side-events of international conferences.

According to Jamieson, who wrote about this in 1994, when philosophers and decision-makers talk about environmental justice they mostly have in mind the last of the three meanings: environment as a commodity to be distributed. This still rings true today, and it is certainly the case of the research on environmental justice directly linked with climate change. Being mostly caused by measurable anthropogenic greenhouse gasses emissions on the global scale, the climate change problem lends itself to be approached from a distributive perspective. The problem of allocation of future GHGs emission is one of the most discussed issues in the literature of climate justice, and disagreement over it is what contributed to preventing an ambitious post-Kyoto deal for climate mitigation for many years.

Other cases of environmental degradation could, from a layman's perspective, be more easily associated with, and dealt within, a different and non-distributive approach of environmental justice. Think of protection of biological diversity. Animals, plants and whole ecosystems seem perfect beneficiaries of a limited set of obligations aimed at protecting them from predatory profit-seeking practices - the first idea of environmental justice. This is not, however, the approach adopted by the 1992 Convention on Biological Diversity, which considers biological diversity a resource to be exploited sustainably and to be accessed on an equitable basis according to intra-generational and intergenerational principles of distributive justice (Schroeder and Pogge, 2009). The other two approaches to environmental justice - the first and second understandings of

environmental justice - albeit rather flourishing in terms of scholarly output, are sidelined in official policy-making circles. The most important work which clearly inscribes itself within the first understanding of environmental justice is probably Peter Singer's *Animal Liberation* (1975). The book utilizes an utilitarian framework and argues in favor of extending consideration of justice to animals on the basis of their capacity to experience suffering; even though Singer himself would probably reject the language of justice for a more properly utilitarian moral vocabulary. The book had undeniably far-reaching impacts, and it is by many considered the theoretical expression of the ideas put forward by the animal liberation movement and by the organization PETA (People for the Ethical Treatment of Animals) (Newkirk, 2015). However, while something has been changing lately in developed states - in 2012 the EU banned the use of barren battery cages - Singer's work has been mostly received as a plea to change individual lifestyles: in a way, closer to a treatise about private morality than about public justice. Furthermore, the debate to advance animal welfare in policy circles is often framed in terms of food security: the extension of certain benefits to animals is ultimately justified in anthropocentric terms, which in turn places the issue of animal welfare only imperfectly within the first understanding of environmental justice. But if environmental justice within policy circles is mostly discussed in terms of distribution of benefits and burdens of managing environmental resources, then it follows that the environment is mostly perceived as a commodity. This is something that draws together economic theory and theories of environmental distributive justice in the face of radical positions, as both economic theory and theories of distributive justice - explicitly or not - present commodification as a necessary prerequisite for their smooth workings. In the first case, commodification is the necessary condition to manage scarce natural resources efficiently; in the second, to manage them equitably.

A distinction at this point should be made between the two different senses of commodification of nature and their implications from a radical perspective. The first sense is the one we have reviewed in the first part of this section: natural resources and processes become commodities when they go through a four-stage procedure: economic framing, monetization, appropriation, and commercialization. This procedure is instrumental to market exchanges which rely on well-defined property rights to work efficiently. Natural resources and processes become commodities when they clearly have a price, clearly have an owner, and they can be exchanged.

The second sense of commodification is the one presented above, as implicit in the third understanding of the idea of environmental justice. In that context, environmental processes and resources are referred to as commodities by means of an analogy with actual natural commodities, i.e. those entities that go through the four stages of commodification. In other words, the environment is treated *as if* it were a commodity. Certain features of what it means to be a commodity are singled out and then compared with the implicit understanding of "environment" as given within the third idea of environmental distributive justice. What emerges from this comparison is an idea of nature as an item, i.e. an entity with boundaries, which can be freely exchanged, albeit not always in an actual marketplace, and whose benefits and burdens

can be traded away. Furthermore, at an even more fundamental level, what is also implicit in treating nature as if it were a commodity is the idea of dominance over nature, something that can be controlled and that should be managed. In the radical literature, this approach to nature is belittled as a form of "domestication of the earth" (Wuerthner *et al*., 2014). The idea of domesticating the earth captures the aspect of environmental distributive justice that more than any other is problematic from a radical perspective: the idea that nature is out there for us.

The economic concept of a commodity is more specific and fine-grained, whereas the one implicit in distributive justice theories sits at a more abstract level. According to the latter, natural resources are commodities because they are economically framed, monetized, appropriated and exchanged even when they do not *explicitly* receive a numerical estimate tracking their monetary value and are not exchanged in an actual market, but also when they are traded in international conferences, in exchange for things whose values cannot really be put into prices, like international stability, or the appeasement of an assertive country. Theories that mostly criticize the economic understanding of commodity tend to put forward technical remarks and they are informed by a different understanding of how natural processes work - this strand of research is usually carried out by ecological economists - whereas those that aim to criticize both senses of commodity tend to put forward remarks informed by alternative theories of environmental justice. In what follows I have divided these two types of criticisms as pertaining to two different questions.

Commodification: Two questions

Let us now go back to the two questions posed at the beginning of this section. By replying to the question, "Can nature be commodified?", scholars look at the technical difficulties involved in creating markets out of nature's functions. By replying to the question, "Should nature be commodified?", scholars look at the potentially disruptive consequences for humans and for nature itself of framing, pricing, and allocating environmental resources and services. This question can be answered from an anthropocentric perspective - disruptions that commodification will cause to us - and from a non-anthropocentric one - there is intrinsic value in nature that impedes us from trading its functions as a trivial object.

These two simple questions - "Can nature be commodified?" and "Should nature be commodified?" - are not clearly distinguished in the literature. For example, while Douglas McCaulley (2006) is often presented as an influential voice in the radical literature, one that argues that some things ought not to be for sale because of non-anthropocentric reasons (Gómez-Baggethun and Ruiz-Pérez 2011: 621), it is often overlooked that he puts forward his case by relying on technical consequentialist arguments only (a review of his arguments is provided below). A somewhat similar remark on the state of the literature has been made by Karen Bakker (2005), who laments the lack of fine-grained analysis when it comes to the impacts of markets upon

the environment: "commodification, markets, and private sector are understood to be pernicious, the impacts of neoliberalism upon the environment are *assumed* to be largely negative" (Bakker 2005: 544, emphasis is mine). She also laments that "analytical imprecision and the failure to make explicit the normative bases of our arguments [the radical arguments] have significant consequences [...] undermining the progressive potential of critical scholarship" (Bakker 2005: 544). In other words, much of the radical scholarship puts forward technical criticisms for why markets might be considered bad for the environment but fails to clearly make a connection between these criticisms and deeper normative presuppositions that inform them and leaves unexplained why other instruments for environmental conservation should be explored. Normative presuppositions and alternative approaches to environmental protection are usually left to the readers to figure out; this task is sometimes made easier by the choice of the journal in which radical scholarship usually appears: the very placement of an article in journals such as the Marxist-leaning *Capitalism Nature Socialism* makes explicit some of the normative bases implicit in the criticisms of market-based approaches.

In what follows I will divide radical arguments into either technical arguments that reply to the *Can question*, or deontological and consequentialist arguments that reply to the *Should question*.

(i) Nature cannot be properly commodified, therefore it should not. (Analyzed in the present section)
(ii) Nature should not be commodified, and there is no point in even asking about the *Can question* and the related technical problems (to be dealt with in the second part of the section about commodification)[1]

In case of (i), the arguments put forward in order to argue that nature should not be commodified are of the consequentialist type; they point to negative consequences that might unfold as a result of the fact that nature cannot be properly commodified from a technical point of view. As such, these arguments are best understood as directed against the economic notion of commodification. Arguments that point to technical shortcomings of economic theory in commodifying nature can be further divided in terms of the four stages of commodification introduced above. In case of (ii), the arguments put forward in order to argue that there is no point in even trying to commodify nature are mostly non-consequentialist and can be both anthropocentric (eco-socialism) and non-anthropocentric (biocentrism and ecocentrism). These

[1] There is, obviously, another possibility which, however, has no place among the positions held by radical environmentalists: i.e. nature cannot be properly commodified, however it should be commodified nonetheless, albeit imperfectly. In other words, one could argue that no money value can represent the true value of natural resources/systems, but it may be practically valuable to place a contingent monetary value on these resources/systems because otherwise they are discounted and effectively valued at zero, which leads to excessive rates of destruction and destructive consumption. Most defenders of contingent valuation hold this view, or something like it. This is a popular argument in pro-market circles, and, as such, it has been already reviewed in Chapter 2.

arguments are best understood as directed against both notions of commodification: the economic one and the one implicit in theories of distributive justice.

From "can" to "should"

I start from (i) and follow the order of the commodification stages. The first stage of commodification frames environmental functions as services that are useful to human welfare. One of the technical problems in framing economically environmental functions is that complex ecosystems are treated as if they were bounded and discrete (Kosoy and Corbera, 2010: 1232). The same point is also made by Arild Vatn and Daniel Bromley (1994), who argue that environmental mechanisms are complex, interrelated and are shaped through a trial-and-error process over thousands of years. Sometimes we do not know about the function of an environmental process until it has disappeared. The problem raised by Vatn and Bromley is cognitive. Humans now do not have the instruments to understand and analyze nature's function as discrete entities, and, given the head start of nature in terms of evolution compared to the *Homo Sapiens*, it can be doubted whether humans will ever get to that point. The difficulty in compartmentalizing nature's functions translates into actual problems for environmental protection once nature's functions have been imperfectly singled out. With these observations I am thus moving into the *Should question*. The main problematic consequence that might follow from imperfectly compartmentalizing nature's functions is that of ultimately harming nature and the human beings dependent on it. For example, once forests are mainly understood in terms of the CO_2 they store, and their complex functions reframed in terms of the service lent to us by storing carbon, then conservation efforts get translated into amounts of CO_2 stored and into maximizing this figure - or keeping it constant while other parameters might change. "Green deserts," a negative expression to refer to reforestation projects which aim to plant fast-growing non-native trees in deforested areas, can be precisely understood in terms of this dynamic: while these trees, such as the eucalyptus, store great amounts of CO_2, they might eventually harm the environment in terms of the biodiversity which they cannot harbor. Apart from this oft-quoted example, there might be a myriad of other cases in which even the best efforts and intentions towards conservation and environmental protection, when coupled with imperfect compartmentalization, produce counterproductive results.

The second stage of commodification is that of monetizing the services provided by nature. One of the technical problems in monetizing nature's functions is that environmental goods, even when already framed as services, resist pricing. This is, for example, clear in contingent evaluation surveys which are used by the economists in order to evaluate how much certain resources are worth. Sometimes, respondents seem to attach incredibly large existence values (the expression used by economists to refer to intrinsic value) to even those animal species whose use values are very clear to us, such as edible fishes. The problem is a mismatch between the fixed categories of economic

theory - e.g. preferences need to show some transitivity to be worked out - and what people feel about the environment. From the economist's point of view, laypeople would value the existence of mice less than cod, of cod less than elephants, and of mice, cod, and elephants less than a new medical procedure to save human lives. One would think that there is no point in donating money to save the elephants if, with the money one has left, one can no longer afford a previously affordable life-saving drug. This, however, is not always shown in surveys; it does not mean that these people will actually prefer to save the elephants, but it shows that certain people have an inner repulsion towards putting a price on nature; sometimes they refuse to answer, sometimes they give an incredibly large amount as a response. Technical problems arise when all these responses need nonetheless be converted into a monetary figure. Few, or many, protest responses at contingent evaluation surveys will not change anytime soon the trend towards the monetization and commodification of nature; "the genie is out of the bottle," said Markus Peterson *et al*. referring to this trend (2009: 117). But if this is the case, then the monetary figures cannot but be constructed by the economist who will select data more or less consistent with mice less than cod, less then elephants, less than a new medical life-saving procedure for human beings, which is what the economist needs to make no-nonsense recommendations to the policy-maker.

The problem of nature which resists pricing can be analyzed from two different points of view: the first is purely technical. It is the idea that economists do not know yet how to convert responses which deal with the evaluation of nature into prices; perhaps they only require a more elaborate procedure to extrapolate people's real preferences. The second explanation of why nature resists pricing is based on the idea that nature has an intrinsic value which cannot be exactly priced, no matter how elaborate the procedure to do so. To be fair, these claims are not universally accepted, and would be roundly rejected by some ecosystem-services analysts. Indeed, it is common to urge that contingent values given to ecosystem services will represent a lower limit on the value of the resource itself. Furthermore, many things that have non-market intrinsic value are for sale on the market with little discussion, including life-saving medicines, books, artworks, animals, food, etc. Those who urge that we should not prohibit the sale of transplant organs or sex do not and need not deny that these things have a value that cannot be properly expressed as a dollar price. Yet, while the arguments about the difficulty of pricing nature cannot be sufficient, on their own, to object to its commodification, they should be considered in connection with the likely consequences that inexact prices produce in a market economy. Indeed, if properly pricing nature's functions is not yet possible, or outright impossible, because a sizable sector of people find the very idea insulting, then doing it nonetheless cannot but produce problems for environmental protection, because, in economics terms, it will lead to unavoidable market failures.

Indeed, there are times in which even the correct price is not enough to protect a natural resource. This is, for example, the case in which economic growth and environmental protection are genuinely mutually exclusive goals: putting the two goals on the same scale by pricing environmental functions makes trade-offs potentially

damaging for the environment a whole lot easier. A case in point is the example offered by McCauley (2006): the introduction of the invasive Nile perch into the Lake Victoria, which, while boosting the economy around the lake, destroyed its biodiversity; similar cases of environmental species or functions which are "worth more dead than alive" abound. Another potential drawback unleashed by the mechanism of pricing nature is that of making environmental protection sensitive to the vagaries of markets, which are far from being stable and reliable institutions. McCauley offers the example of pollination services the values of which oscillate with the values of the product in need of pollination. If a particular agricultural market is in recession, then the incentives to protect its pollination services will also take a comparable dip. A further argument put forward by McCauley is that by expressing the value of conservation in monetary terms, humans will "commit the folly of betting against human ingenuity" (McCauley, 2006: 28). In other words, if certain functions are valued so long as they are useful to us, then once humans will find cheaper substitutes, those nature's function will stop being worthy of protection; natural watersheds which naturally filter waters are a case in point.

The third stage of commodification is that of appropriating the now compartmentalized services provided by nature. There are non-trivial difficulties in creating property rights for environmental functions in places where the very notion of property rights is foreign. In certain Native American or Aboriginal cultures, it is the Earth which "owns" the human beings, not the other way around (Global Oneness Project, 2009). Secondly, even in cultures more in tune with the idea of human supremacy over nature, there might be no concept of a limited property right and ownership is often contested by many social groups. One of the problems of implementing REDD projects has been precisely the fact that there are overlapping right claims by different actors, and with this the fear that those who reap the largest benefits from REDD projects might not be those responsible for sustainably managing them, and this often disrupts long-kept and delicate balances in the management of natural resources (Gover, 2016).

A somewhat similar argument is also put forward concerning the fourth stage of commodification. The creation of markets for newly introduced commodities does not raise particular technical difficulties, sometimes only political will is necessary, together with a few conferences, the opening of some offices, and the hiring of some technical and administrative personnel. But as it is well-known that, once new property rights regimes are created people scramble to get their hands on them, bureaucrats such as UN professionals, in drafting rules for market-based projects implementation, try to prevent clear misconduct, graft, and theft by buyers and sellers on the market. Complex provisions establishing who can do what and when, and various monitoring and accountability mechanisms, sometimes result in long technical documents which *de facto* create an entry barrier to the market for poorer people who might wish to sell their management of certain environmental services which they legitimately control. This, in turn, reinforces patterns of inequality.

From "should" to (not asking about) "can"

Appropriation and common property theory

Radical environmentalism scholars have two further arguments to oppose the commodification of nature when it comes to the appropriation stage; both of them depart from a Marxist reading of the relationship between man and nature. The first is a consequentialist argument (the only one to be discussed in this section). According to contemporary Marxist scholars, the creation of property rights for natural resources will worsen existing inequalities and map them onto the environmental domain. In other words, the creation of property rights will facilitate the process of appropriation by those who own important financial resources, which is an integral part of capital accumulation. Profit and capital accumulation are seen as the main motives moving the economy, in line with a Marxist pre-neoclassical reading of economic relations. Harvey calls this mechanism "accumulation by dispossession" and sees forestry market-based instruments such as REDD as a paradigmatic case of this process (Harvey, 2004).

The difference between this argument and the one surveyed above is that it does not depart from a technical shortcoming or a technical difficulty in the creation of property rights: bad consequences will follow no matter how accurate the newly drawn boundaries around property rights track the previous uses of a natural resource: who had access to it, who managed it, who could exclude others from using it, etc. In other words, it is the act of creating property rights *per se* where there were none before and where resources were managed commonly that will deepen existing inequalities. Where new property rights regimes are introduced, these tend to reflect, either initially or after a short while, the existing power asymmetries, with those with economic and social power in a better position to appropriate the natural resources. This dynamic in the past has even resulted in the forced eviction of local populations from the areas they used to inhabit from immemorial time, as in the case of the Sengwer population in Kenya (UN News Service, 2014; World Bank Group, 2016; Chepkorir Kuto, 2016).

Within this strand of research, common property theory gave new tools to understand the dynamics of overexploitation of natural resources following the introduction of property rights (Pokrant, 2011; Robbins, 2012). These critical tools were largely developed as a response to the new paradigm of the *Tragedy of the Commons* introduced by Hardin (1968) who claimed that a resource open to all would eventually be depleted, as the most rational response for every party involved is to adopt non-cooperative behavior, overexploiting the resource for fear that the other parties might do the same; a situation largely similar to a prisoner's dilemma. As we have seen above in Chapter 2, two scenarios follow from Hardin's argument to solve the potential problem of overexploitation. The first is the introduction of property rights: everyone is allocated an amount of natural resources, from which it follows that every actor will have to look after the resource so that its yield can be sustained in the future as well. The second is the introduction of exogenous institutional rules for the access and use of the natural resources. Needless to say, in the years of strong market environmentalism storytelling,

coupled with the decreasing appeal of centralized regulation, the second scenario implicit in Hardin's argument has been largely forgotten. As Hardin's argument has been mostly received as a call for privatization, common property theorists sought to understand whether the introduction of property rights could actually solve the dilemma of collective resources.

While the theory of the tragedy of the commons is theoretically elegant, there is a vast literature on the management of common resources that provides countless exceptions to the very premise of the dilemma (see the collection of papers in the National Research Council Report, 1986; Van Laerhoven and Ostrom, 2007; Ostrom *et al*., 2002). In other words, non-privatized and not institutionally regulated common resources are not prone to be overexploited as easily as Hardin thought they would have been in those situations. Hardin's mistake was to believe that a common resource is a free for all unowned good, when in reality open pastures, fisheries, and forests are perceived by the locals accessing them as commonly held properties largely governed by implicit rules. What Hardin really did was to analyze the tragedy of the much rarer free access resources, not the commons (Martínez-Alier, 2002: 74). However, by mischaracterizing what commons truly are - and even though Hardin identifies the source of the problem as structural, not moral -, a narrative took shape that shifted the fault of environmental degradation onto local communities, while prescribing the need that those resources be managed more efficiently. The risk is that once external players are brought in through the privatization of the commons, a different dynamic is likely to materialize: powerful private actors will use the resource to its fullest, especially if negative externalities are poorly accounted for, causing degradation and then move onto the next resource, as the capital accumulated from the fast exploitation of the resources would allow the private actor to acquire new resources (Robbins, 2012: 54).

Appropriation and natural resources to be enjoyed as public wealth

The second argument against appropriation does not rest on the evaluation of the consequences following the creation of property rights. Rather, it points to a principle of equity in managing natural resources which appropriation would directly oppose. Marx hints at this argument at various points in his work, but never in a comprehensive way. It rests on a basic intuition first put forward by James Maitland, better known as the Lord of Lauderdale, and recently recalled by three eco-socialist scholars: John Bellamy Foster, Richard York, and Brett Clark (Foster *et al*., 2011). There is an inverse correlation between public wealth and private riches, such that if one increases the other diminishes; this is known as the Lauderdale Paradox (Maitland Lord of Lauderdale, 1804). The difference between the two is that public wealth consists of "all that man desires, as useful or delightful to him" (Maitland Lord of Lauderdale, 1804: 46), whereas private riches are "all that man desires, as useful or delightful to him, which exists in a degree of scarcity" (Maitland Lord of Lauderdale, 1804: 47). From this follows that when a resource that had been previously abundant becomes scarce,

individual riches - and aggregatively the riches of the country - increase, but at the expenses of public wealth. An example of this dynamic provided by Foster *et al*. is the following: if a reserve of water freely available for everyone is appropriated and a fee is placed upon its use, the private riches of the appropriator would increase at the expense of the increasing thirst of the other people. At the heart of the paradox stands the distinction between use value and exchange value, and the fact that both can be attached to a single object or natural resource. As scarcity increases, an exchange value gets attached to natural resources on top of their use value, which progressively diminishes. Marx took the Lauderdale Paradox and made it into one of the central tenets of *Das Kapital,* as he claimed that in capitalistic societies the earth is used as a reservoir from which use-values are to be extracted (Marx and Engels, 1867).

According to Marx, and in this he is remarkably similar to Kant,[2] the stock of use-values made available by the Earth should be managed according to a principle of equitable use for current and future generations. This principle cannot be enforced when land stops being a common resource. Of course, one could argue that even though the accumulation of private riches robs the earth of public wealth, it is always possible to return something in the form of taxation to those that according to the principle of equity were entitled to a share of public wealth. In that case, a principle of equity would still be enforceable, even if the land is no longer a common resource. Yet this would miss the point. Sometimes, the passage from public wealth to private riches involves a degradation of the environment which is instrumental to the increase of the exchange values of the resources and which taxation cannot possibly revert. Going back to the Lord of Lauderdale, he saw this dynamic in action every time the 18th-century Dutch colonialists burned spices in particularly fertile periods (Maitland Lord of Lauderdale, 1804: 44). Furthermore, even when the passage from public wealth to private riches does not involve an actual degradation of the resource, as in the example of restricted water access, the compensation is still qualitatively different from what originally people were entitled to. For example, the value of monetary compensation is subject to the vagaries of markets in different products and cannot always guarantee the access to a share of the appropriated resource as large as the one the person was originally entitled to. In this sense, both the distinction between two modes of enjoying goods - as public wealth and as private riches - and the principle that natural resources should be viewed primarily in terms of public wealth to be enjoyed by everyone on the basis of a principle of equity - which Marxist theorists would probably flesh out in terms of needs - enabled Marx to go well beyond a leftist reading of the Lockean proviso.

The Lockean proviso is a clause within Locke's *Second Treatise on the Government* (Locke, 1690 [2015]), and later recalled and discussed by Nozick in *Anarchy, State and Utopia* (1974), according to which the initial appropriation of a resource is subject to some limitations on grounds of justice. The basic difference between the various interpretations of the proviso - even the leftist ones - and Marx's

[2] Kant claimed in *Toward Perpetual Peace* that the "use of the right to the earth's surface which belongs to the human race in common" (Kant 1795 [2006: 8:358])

idea of equity in access to natural resources is that the former remain rooted in the understanding of natural resources as commodities to be distributed, whereas the idea of natural resources as something to be enjoyed as public wealth enables Marx to refrain from this position. Scholars have identified up to three different versions of the Lockean proviso (Widerquist 2010: 7), even though most of the scholarship on Locke's initial appropriation theory focuses on what is known as the enough-and-as-good limitation; this is due to Nozick who called it "*the* Lockean proviso" (Nozick 1974: 178-82, emphasis is mine). According to this version of the proviso, appropriation is justified when enough and as good is left for others. Several readings have been given of the Lockean proviso, going from the Nozickian version thereof, which requires that no individual be made worse off by the use or appropriation of a natural resource compared with non-use or non-appropriation, to more stringent ones. According to a centrist reading, the proviso requires that those who have not appropriated the natural resources be left with an adequate share of natural resources; then, depending on the scarcity of the resources and the conception of adequacy, the proviso can be rendered more or less strict. According to a leftist reading which, analogously to Marx, sees natural resources as belonging to everyone, the proviso requires either that one leaves an equally valuable share of natural resources for the others, or that one leaves a share of natural resources which is enough for others to have as good an opportunity for well-being.

Starting from the Nozickian reading, the readings of the proviso listed above become progressively more demanding: the rightist reading (the Nozickian one) bases compensation towards those who did not acquire the resources on their reservation price, i.e. the lowest payment that would make the two scenarios - appropriation or non-appropriation by another person - indifferent to them. The centrist reading is more demanding, but, similarly to the rightist one, departs from the premise that natural resources found in nature are not held in common, and thus, provided adequate compensation is forthcoming, their benefits can be reaped by the first person who claims to use a natural resource. On the contrary, the leftist readings recognize that natural resources are held in common and maintain that this fact is normatively significant in how the resources should be distributed. The leftist reading based on equal initial shares, while intuitively appealing, does not account for the possibility that different situations in life beyond the control of the individual might bring different people to use the resources differently, thus consequently allowing great disparities in well-being. The leftist reading based on equal opportunity is closest to Marx's idea of equity in the use of public wealth, as it allows for resources to be distributed differently in order to achieve a similar level of well-being, and - as the other leftist reading - it departs from the idea that natural resources are held in common.

But all the scholarly discussions around the different understandings of the proviso seem to depart from a fundamental assumption which eco-socialist scholars following Marx are not willing to accept; and this refusal puts them in a better position to resist the various processes of commodification of nature. The assumption is that we have already exhausted the resources to be appropriated and that now the debate about the appropriate understanding of the Lockean proviso is mainly to be framed in terms of

the different amounts of compensation which the appropriators of natural resources, or their contemporary descendants, should give to the others. The assumption is not totally wrong. Locke was writing at a time when the frontier line in America was starting to move westwards to places very sparsely settled. Now the opportunities to appropriate resources, while leaving "as much and as good" for everybody else - 9 billion by 2050 according to the UN estimates (UN DESA, 2015) - seem scant at best, if not outright impossible. However, the Marxian theory of capital accumulation makes eco-socialists better placed to understand appropriation not only as a geographical endeavor - although appropriation had never only been a geographical endeavor -, but also a conceptual one. In other words, the Marxian theory is more attuned to understanding appropriation not only as discovering new *physical* places, but also *conceptual* ones.

According to David Harvey, capital always looks for new "commodification frontiers" to keep accumulating: even if one day all the oil deposits have been found, and all mines discovered, the commodity frontier will have already moved to bioprospecting or ecotourism, and to other yet undiscovered opportunities for commodification. In other words, eco-socialists better understand that there are plenty of natural resources that, while sitting on already appropriated land from a geographical point of view, are not yet conceptually appropriated, i.e. they are still enjoyed as public wealth and they are not yet scarce. Using the vocabulary of economics, one could say that appropriated resources sometimes provide positive externalities that are not yet accounted for, as in the case of many ecosystem services. But they soon might be accounted for, and appropriated. Talking of appropriation in geographical terms only and, as a consequence, assuming that everything is already appropriated, leads the various interpreters of the Lockean proviso to frame the issue of acquisition only as a matter of compensation. Yet requiring compensation from a not yet conceptually appropriated resources both legitimizes and incentivizes the exploitation of the resource and hides the fact that in certain cases it could still be possible to commonly enjoy the resource *qua* public wealth, i.e. in the form in which it is found in nature.

Nature as an end-in-itself

Eco-socialist critiques are not the only positions which radical environmentalists can resort to when replying negatively to the *Should question*. Radical environmentalists argue that nature should not be commodified because, independently of whether it could be technically feasible to do such a thing, there is intrinsic value in natural resources and processes. Intrinsic value *per se* is too vague a concept to have the thrust to stop processes of commodification. In the literature, four different understandings of it are usually distinguished (Woods, 2011: 249): first, intrinsic value means non-instrumental value; second, it could mean that the bearer of intrinsic value is an end-in-itself and as such admitted to the moral community; third, it could mean that there is a value that inheres in the thing itself, i.e. a non-relational property whose value does not depend on the existence of something else; fourth, it could mean that there is value that is mind-

independent, something that exists independent of whether humans perceive it or not; John Searle would call it a "brute fact" (Searle, 1995). The first and second understandings of intrinsic value seem to be the best to support the radical arguments against commodification, i.e. something that has intrinsic value is an end-in-itself which has moral standing and which has non-instrumental value. The third and fourth understandings seem to push for a realistic account of intrinsic value which is, however, not needed to ground meta-ethically a non-anthropocentric ethic, as something can have intrinsic value, and yet this can only be recognized by the value-recognizing activity of the human mind.

Something that has intrinsic value generates a *prima facie* moral duty on the parts of human beings to safeguard it and refrain from damaging it. The argument here is modeled after the Kantian categorical imperative: the idea that the recognition of an end-in-itself calls for a very special and different treatment of the holder of the end-in-itself, usually persons or in the case of environmental ethics, also animals and natural resources; in other words, an end-in-itself cannot be simply used as a means to further our own ends. Kant himself never extended the categorical imperative to nature and animals because they are not in his view rational beings. He claims for example that cruelty towards animals is only bad because it makes humans accustomed to cruelty towards other beings, and ultimately to other humans. In doing so, he was reflecting both the state of the research on animal cognition at the time - animals were mostly conceived as responding to instincts over which they have no control - and the quintessentially anthropocentric tradition of both Western philosophy and Judeo-Christian thought. According to the latter, the Bible in the Genesis book makes clear that God created the earth so that humans could have dominion over it to satisfy their desires; similarly, Aquinas claimed that non-human animals are "ordered to man's use" (St. Thomas Aquinas, *Summa Contra Gentiles*, ch. 112, paragraph 12). It is not until the ideas of St. Francis have received scholarly attention that the traditional view of domination of man over nature has come to be openly questioned within the Christian scholarship (White Jr., 1967). Similarly the Western philosophical tradition: before the Copernican revolution, it put human beings at the center of its moral edifice because of their God-given superior importance. And after the revolution, it still put human beings at the center in light of their capacity to elevate themselves above the natural world through the sole use of their rationality.

While Kantian ethics might give a good indication of what it means to be an end-in-itself and what kind a response an end-in-itself elicits from human beings, it is not helpful in actually locating ends-in-themselves in anything other than human beings. There are three possible strategies to argue against the idea that only human beings are end-in-themselves: the first is a negative one and by way of an analogy with the progress of morality (Goodin, 1996). As moral progress throughout history has almost always taken the shape of an enlargement of moral consideration to an ever greater class of beneficiaries - based on gender, color, location, ability, etc. -, then surely we must be doing something similar when drawing a boundary around the human species and considering human beings as the only beings worthy of moral consideration. The

argument is largely inductive: given our bad record of putting boundaries and then surpassing them, limiting moral considerations to humans seems the umpteenth prejudice which sooner or later philosophers will have to come to recognize as such and ultimately overcome (Singer, 1975). After all, would not elephants restrict moral standing on the grounds of weight, or cheetahs on speed, if they could? That human beings give prominence to rationality, i.e. what they are best at, seems no different, and, to many non-anthropocentric scholars, equally ridiculous.

While rationality might seem an overly anthropocentric principle to discriminate between who has moral standing and who does not, there are other principles - this is the second strategy - that seem more inclusive towards a greater group of beings. The criterion of the capacity of suffering - made a central feature of morality by Jeremy Bentham and revived by Singer for the purpose of animal moral consideration - is certainly one of them, although it still excludes non-sentient beings such as plants. The principle of "being alive" as a criterion of moral worthiness is more inclusive still and is what grounds biocentric ethics. The third strategy to argue against anthropocentrism is by means of a powerful thought experiment which calls on our intuition about what is right and wrong in our interactions with nature. This thought experiment has been introduced by Richard Routley (1973) and describes the hypothetical situation in which just one person - the "last man" - survived a world catastrophe which annihilated all the other human beings. Imagine that this last man goes around the world painlessly eliminating all the other animals and plants, and every other living thing. Depending on the intuitive replies to this scenario it is possible to distinguish between anthropocentric and non-anthropocentric positions, the latter claiming that there is something morally wrong in doing what the last man does as he does not recognize intrinsic value in non-human entities. The last man argument is not conclusive, as it is possible to argue that we genuinely have strong moral intuition about sparing the environment from unnecessary destruction while still considering human beings in a position to make use of the environment for their non-capricious needs. For this, one would need to allow for degrees of intrinsic value, and hence of moral worthiness, and in this layered system human beings would still sit on top; and commodification would still be justified if it furthers the ends of those sitting on top.

The development of environmental ethics towards not only an ever greater enlargement of the species worthy of moral consideration - from anthropocentrism to zoocentrism, biocentrism, and ecocentrism -, but also an ever greater homogenization - all the species taken *together* are important - might be read precisely as a strategy to reject the idea of a clearly layered natural world, which facilitates human domination over it. Compared to an anthropocentric ethic, the idea of ecosystems being intrinsically valuable lends itself less to the exploitation of nature by human beings (even though both anthropocentric and non-anthropocentric ethics ultimately seek to protect the environment), as it categorically precludes that humans could in principle select which natural resources to exploit. From within an understanding of nature as a complex and interlinked whole, human beings, by selectively exploiting certain resources, would not only damage a specific natural object but also spoil and tamper with a complex balance.

Some of the criticisms to environmental economics from the part of ecological economists departs precisely from the assumption that there is a complex balance worthy of being protected and which cannot be preserved through the mere substitution of similar resources.

Concluding remarks on commodification

It bears mentioning at this point that, as theories of distributive justice implicitly frame nature as a commodity to be distributed, both of the normative stances used by radical environmentalists to argue against commodification on normative grounds - eco-socialism and biocentrism/ecocentrism - indeed espouse a different understanding of environmental justice, which does not implicitly commodify nature. The eco-socialist critique of commodification, which departs from the principle that nature is best enjoyed in common and as public wealth - as opposed to private riches -, can be read as an instance of the second sense of environmental justice (here I am referring to the taxonomy developed by Jamieson (1994) and surveyed above). Indeed, the fact that there is a proper modality to enjoy natural resources poses an additional limiting condition in the way we interact with one another and with nature. Natural resources are still out there for us, however we are limited in the way we can use them.

The radical critique of commodification which departs from the recognition that there is intrinsic value in nature which requires us to refrain from certain environmentally degrading activities can be read as an instance of the first sense of environmental justice. Indeed, the recognition in another entity as an end-in-itself requires us to extend the circle of the beneficiaries of justice to that entity as well.

Going back to the categories of efficiency and justice, we have seen that radical environmentalist scholars reject efficiency and social justice as core values to be pursued by environmental policy. They do this, first, by showing, through a battery of arguments - both consequentialist and deontological, anthropocentric and non-anthropocentric -, that the commodification of nature has a negative impact on environmental protection efforts. They do so, secondly, by problematizing the role of the commodification of nature within economic theory and liberal theories of distributive justice, arguing that commodification represents a pre-requisite for both. For the former, commodification is a necessary condition to manage natural resources efficiently; for the latter, it is often a necessary condition to manage them equitably.

GROWTH ASSUMPTIONS IN ECONOMIC THEORY AND IN LIBERAL THEORIES OF DISTRIBUTIVE JUSTICE

The case for economic growth as a policy objective rests in a mixture of different reasons that cross the different epochs of economic thinking about growth. According to Heinz Arndt (1978), who compiled a short history of the idea of economic growth, there

are five main reasons why economic growth is so appealing as a policy objective: it provides sustained material progress, it enables policy-makers to decide on competing claims for resources with greater ease, it enables them to achieve very low figures of unemployment rates, society is generally happier, and it enables governments to keep up with the development of other countries. The last reason is clearly a relic of the cold war epoch in which rivalry between USA and URSS was also based on the two economies' productive output as a form of mutual muscles flexing. Yet, it found nonetheless new life in the context of Europe's current policy in which the homogenization of the development of different European regions is the main aim of the EU cohesion policy.

While the 1960s and 1970s have witnessed a lively academic debate on the merits (Beckerman, 1974, 1995) and costs (Galbraith, 1958; Mishan, 1967; Schumacher, 1973) of economic growth as an overreaching policy objective within the discipline of economics, it was not until the famous study *Limits to Growth* (Meadows *et al*., 1972) that the issue of economic growth started to be seriously questioned from a distinctively environmental point of view. More specifically, computer simulations had been run for a series of variables - such as food supply, pollution, natural resources, etc. - and then confronted with the carrying capacity of the earth for each of these elements. "Malthus with a computer," this is how Christopher Freeman (1973), an early critic of the report, unflatteringly characterized it. There is some truth to it, though. Albeit Thomas R. Malthus (1798) only took the growth of the population as the variable determining the collapse of the economy, the story is the same old one: growth cannot continue indefinitely in a closed system, such as that of the earth.

The study of the Club of Rome split many opinions, especially because it touches a subject, that of economic growth, which in some way has always been in the mind of the economists since the very inception of the economic discipline. The debate that ensued in the wake of the *Limits to Growth* report can be parsed into three different questions and related responses: should the economic discipline accommodate the requests of the environmentalists who demand that our economies stay within the ecological limits of the earth? Can the economic discipline accommodate such requests? If so, how? I will introduce the radical positions in the debate by reviewing the first two questions. I will not discuss the last position, as radical scholars do not think that mainstream economic theory could accommodate the requests for an environmentally bounded economy.

(i) Should the economic discipline accommodate the requests of the environmentalists who demand that our economies stay within the ecological limits of the earth? Many of the early critics of the report replied negatively to this question. According to them, there is no need to fiddle with an already quite sound economic theory, which predicts that the economy will adapt on its own to the new shortage situations we might encounter in the future. They point out that the computer models of the Club of Rome scholars run into limits simply because a price mechanism had not been built into the models (Lomborg, 2012). Had they done so, the authors of the *Limits to Growth* study would have found that it is very difficult to reach the limits of a given

resource. This is because, once a resource becomes scarce, its price increases up to a point at which it is cheaper to adopt a substitute. Those who reply affirmatively to this question, argue that the price mechanism does not always work well (externalities, monopolies, ill-defined property rights, etc.), and that, while environmental protection might be attained without a complete overhaul of our current economic thinking, the global economy does need a gentle push in the right direction, usually through market-based instruments that correct for systematic errors in the price mechanism. These two positions represent two different strands of market environmentalism: one more radical, the other more moderate (associated with the narrative of ecological modernization). Similarly to radical market environmentalists, radical environmentalists think that we should not bother tinkering with our current economic theories. But for a different reason: not that our economic theory is so solid that it will adapt on its own to the future challenges, but because a solution cannot be found from within the same neoclassical framework.

(ii) Can the economic discipline accommodate such requests? While pro-market environmental scholars argue that instruments can be devised to make economic thinking more in tune with the problem of our time - the above-mentioned gentle push - radicals are resolute in thinking that whatever update to our best economic theories we might make, it will not cause our global economy to slow down. It is not so much about updating current mainstream theories; instead, coming up with a new approach is what is truly needed. Economic growth, the main culprit for environmental degradation, is too embedded within economic theories for environmental scholars to be able to throw out the bathwater without the baby. In other words, it is not possible to continue to use a mainstream economic approach built around economic growth - such as market-based instruments to curb climate change - while at the same time protecting the environment. The following sections review the arguments used by radical scholars to argue in favor of this position.

According to radical market environmentalists, we should not adapt our economic theory because it already works well. According to moderate market environmentalists, we can adapt our economic theory and we should. According to radical environmentalists, our current neoclassical economic theory cannot be adapted to the demands for a global economy which stays within the ecological limits of the earth. Therefore we should not bother about it and instead focus our attention on completely overhauling our approach to environmental protection.

Refining the argument against economic growth

Before surveying the radical arguments against the possibility of using our current economic framework to reply to the current and future environmental challenges, I need to briefly go back to one fundamental question that I have left in the background: what

is it about economic growth that is so harmful to the quality of the environment? Malthus and his computer-bearing descendants would have a quick and straightforward reply: every economic process originates from input resources that, through energy and labor, produces outputs plus waste. If the economy keeps growing, there will be less and less input resources and more and more waste to deal with; this harms the environment, animals, and us, human animals. Following this logic, then, one should conclude that what radicals really are concerned about is *that kind of economic growth that greatly depletes input resources and produces great amounts of waste*. Pro-market environmentalists argue that the two things - economic growth and resource depletion - do not necessarily go together; that the price mechanism will decouple economic growth from resource depletion as soon as the demands for economic growth and environmental quality are both high on the priority list of people. The hypothesis contained in the environmental Kuznets curve is precisely that, after a certain point, economic growth seems to decouple from resource depletion and environmental degradation.

Apart from the fact that evidence supporting the EKC hypothesis is scarce at best (Stern, 2004), radical scholars also take issue with the very sense in which an economy is said to be decoupling. While there is evidence that in developed countries relative decoupling is slowly taking place - real GDP grows more than the total GDP demands on the environment (in terms of energy, waste, air quality, etc.) -, the evidence which aims to prove that decoupling is taking place in absolute terms - real GDP growing while the other indicators for environmental degradation fall - is still patchy and non-conclusive. By comparing GDP and growth of domestic material consumption (DMC) data between 1980 and 2008, a Sustainable Europe Research Institute (SERI) Report about green growth found that only a handful of developed countries (i.e. big economies) achieved absolute decoupling; however there are a number of factors that might explain this without committing to the conclusion that green growth is actually happening in those economies (Dittrich *et al*., 2012). The study cites low economic growth and the pollution heaven hypothesis - i.e. the outsourcing of material-intensive production to other parts of the world with lower environmental regulations, which the DCM data cannot track - as major factors contributing to absolute decoupling in certain developed economies.

While radical scholars might use the fact that evidence proving absolute decoupling is still largely lacking as support for their claim against economic growth, what they seem to be putting forward when they oppose economic growth is a stronger claim: that the two - economic growth and environmental quality - are theoretically incompatible. This claim needs to be analyzed in detail.

It is fair to assume that radical scholars who take issue with economic growth in all its form, are informed by the work of Nicholas Georgescu-Roegen on the relationships between entropy and economics. Unfortunately, the name of Georgescu-Roegen is usually quickly mentioned in relation to a famous quote taken from his main work *The Entropy Law and the Economic Process* (1971), and it reads: "Had economics recognized the entropic nature of the economic process, it might have been able to warn

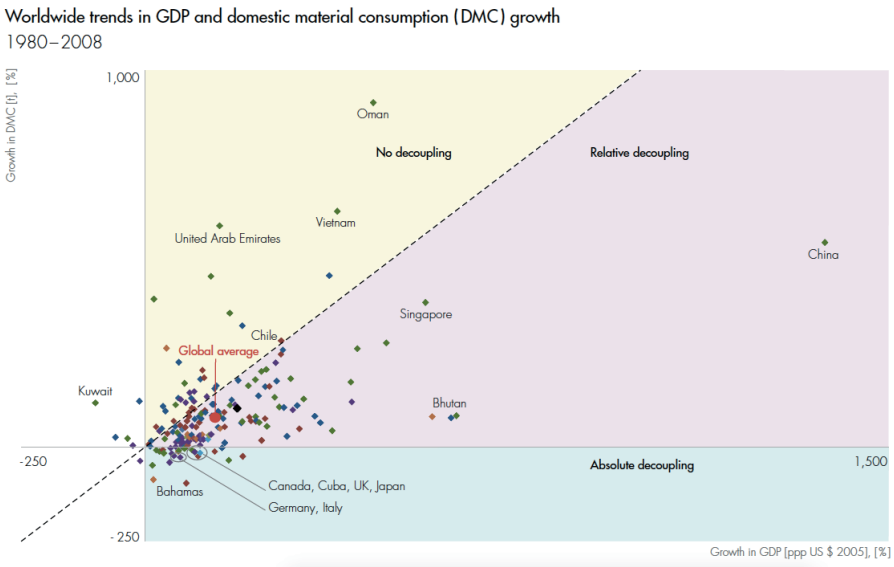

Figure 4.1 - The graph is taken from the SERI Report *Green Economies Around the World?* (Dittrich *et al*., 2012).

its co-workers for the betterment of mankind - the technological sciences - that 'bigger and better' washing machines, automobiles, and superjets must lead to 'bigger and better' pollution" (Georgescu-Roegen, 1971: 19). However, few scholars actually took the time to analyze his theory in detail. According to Georgescu-Roegen, all economic processes of transformation of input resources through energy have to be understood ultimately as evolutionary processes. Neoclassical economics is built around a Newtonian-mechanical framework: what this means, according to Georgescu-Roegen, is that economists consider economic processes as time reversible; like the motion equations in Newtonian physics describing the orbital motion of a planet. The problem with this is that the transformations of materials and energy within a given economy are irreversible; in the vocabulary of thermodynamics, the entropy of a system - and the global economy is such a system - never decreases, but always increases.

The idea behind the concept of increasing entropy is that, given two bodies with different energy, energy will always flow from the body with higher energy to the one with lower energy. As a result, energy becomes more distributed in space and in a form that is increasingly less usable and less ordered. Life on earth depends on a constant supply of low entropy: human beings are a collection of atoms that are highly ordered. To stay in such a state they need food, fuel, and, depending on the one's place and culture, many other objects as well. Life on earth, i.e. the struggle of living things to constantly keep a state of low entropy, always happens at the expense of a compensating increase of entropy in the surroundings. In other words, we use resources and energy to perpetuate our species and to shape the world around us such that it is comfortable to us.

However, this inevitably results in an increase of the entropy of the whole earth system: energy get dispersed and unusable.

According to Georgescu-Roegen, what economics should ultimately be about is to find ways of procuring low entropy and converting it to high entropy for the enjoyment of human life. The Industrial Revolution can be read exactly in these terms: coal is a source of cheap energy that shaped the world around us by transforming, through industrial processes, low entropy into high entropy. But as the terrestrial stocks of low entropy - such as coal, oil, and gas - will one day be exhausted, and provided that new substitutes are not easily found each time, humankind will be forced to revert to the energy provision of pre-industrial times; only renewable energy will then be available. The problem with the supply of low entropy coming from renewable sources is that, even though they are infinite - at least in the timeframe which concerns humankind - they flow at a specific rate. For example, the only solar radiation available is the one that can be captured by the land (and what is built on it), and at the rate it arrives. This, ultimately, will involve making trade-offs between using solar radiation to grow produce or to produce heat and energy through solar panels. What the radical literature does not sufficiently emphasize is that Georgescu-Roegen never explicitly said that economic growth is necessarily bad for the environment, even though his famous quote can be made, with some slyness, to claim precisely that. He said something quite different: given the law of entropy increases, we should use the terrestrial stocks of low entropy wisely for our benefit and those of the future generations, and we should plan ahead for when they will be exhausted. This means that while economic growth could still be a theoretical possibility, it should stop being the overarching policy objective of our global economy. If economic growth is pursued no matter what, instead of being a pleasant occasional addendum on our way to more worthy policy goals, then resource exhaustion and environmental degradation are likely to follow. This is because we do not *currently* have the technology to keep the current rates of growth while relying on renewable sources of low entropy only. To use Peter Victor's expression, we should start "managing without growth" (Victor, 2008), and in a way that is consistent with the rate of the renewable supply of low entropy and the capacity of sinks to absorb waste. We are doing none of those things.

As we have seen above, there is room to attack economic growth solely on environmental grounds: in factual terms, by pointing out that we are still well at some distance from generalized absolute decoupling; and in theoretical terms, by pointing out that economic growth as a policy objective is at odds with making energy policy choices consistent with the rate of the renewable supply of low entropy. However, radical scholars seldom present their positions solely in such environmental terms: according to them, the fixation with economic growth of governments and businesses is the root cause of a series of wider and deeper social problems of which environmental degradation is only the umpteenth epiphenomenon.

For example, Serge Latouche, one of the most vocal radical scholars in the literature against economic growth, puts forwards an anthropological critique of the pervasiveness in the social sciences of the *homo oeconomicus* model, the effects of

which go far beyond the environmental domain. Indeed, in his book *Farewell to Growth* (2009), apart from reiterating - in Georgescu-Roegen's footsteps - that growth is entropically unsustainable, he also takes issue with the idea of development as growth as such, which - he argues - after having corrupted us, is corrupting non-Western cultures. In criticizing the way growth has been pursued in Western societies during the post-war years, Latouche points to the effects of implementing economies of scale which forced people to move into "peripheral" estates and social housing, which homogenized mass-produced goods, pushing local initiatives out of business, and which created the system of marketing and mass-media to continue fueling this "treadmill of production and consumption." Globalization is the same phenomenon all over again, but on an even bigger scale as marginal costs in non-developed economies are lower thanks to lower labor and environmental standards and the availability of cheaper raw materials. Latouche's broader critique of growth (i.e. not only the one motivated by environmental considerations) and the early radical environmentalism meet here as both take cue from the cultural critics of the economic boom of the post-war years: Guy Debord (1967), John Galbraith (1958), Herbert Marcuse (1964), Pier Paolo Pasolini (1961).

Growth and economics: radical criticisms

Having refined the radical arguments against economic growth, we have seen that there are three different reasons to criticize economic growth from a radical environmentalism standpoint: (i) in the global economy, economic growth is not absolutely decoupled; (ii) economic growth cannot be an overarching policy objective, given the physical underpinnings of our advanced economies, and (iii) there is also a broader consideration to be made against economic growth from the point of view of the cultural critique of the Western society of the post-war years. Why - ask the ecosocialists and radical environmentalists associated with the degrowth movement -, is economic growth so central in policy-making?

There are two possible ways to answer this question. First, one could point to competing accounts which frame economic growth as a worthwhile policy goal: following the above-mentioned list compiled by Arndt (1978), there are five sensible reasons which explain the success of economic growth as an enduring and overarching policy objective. Furthermore, the normative presuppositions informing the narrative of ecological modernization can explain how economic growth might have positive effects on the quality of the environment. In other words, economic growth remains central in policy making because the link between economic growth and environmental problems made by the radical scholars is not uncontroversial, i.e. it is not the only possible account of the environmental effects of economic growth.

There is, however, another way to answer this question: what makes economic growth a necessary pursuit of politics? Or, put in another way, what impedes policy-makers from doing away with economic growth as an overarching policy objective,

even if they were reasonably convinced of its negative effects on the environment? Radical scholars reply to this question by criticizing some of the theoretical assumptions governing economic theory (in this section) and governing liberal theories of distributive justice (explored in next section). In so doing, these criticisms can be read as targeting the main elements of the competing narratives of ecological modernization and civic environmentalism, and the core values of efficiency and social justice that subtend them.

In particular, concerning economic theory, they argue that the fact that consumer preferences cannot be externally judged locks economic theory into the pursuit of economic growth, and this, as we have seen in the previous section, hurts the environment. Departing from the principle that the preferences of the consumer cannot be questioned, one arrives at the conclusion that the pursuit of economic growth is built into economic theory through two different routes. According to the first, economic growth is an insurance against the possibility that the preferences of future people might be radically different from ours, and from those we thought future generations would hold. In other words, if we now spoil the environment in order to satisfy other more pressing and important preferences compared to the preference for a clean environment, this is likely to produce two possible outcomes for people in the future: either (i) future people will be disappointed by our choices to spoil the environment, or (ii) they will feel no loss as they will not be particularly interested in a clean environment. In the first case, they will be disappointed, but it is not our fault, as we had no way of knowing their preferences towards environmental quality, and we cannot be expected to act upon knowledge that is inaccessible to us. In the second case, we cannot be blamed as no loss is involved. In the first case, the present generation is not responsible, in the second, it did nothing wrong. However, in case future generations might fall within the first scenario, what we could do now is to guarantee them the same level of well-being as ours, and to do this we should invest in economic growth. As noted by Bryan G. Norton (1994), the argument seems self-serving as it furthers the cause of economic growth while justifying the degradation of the environment. But closer consideration suggests that such is not necessarily the case. Given each generation's inaccessibility to the future generations' preferences, economic growth is the best way to maximize total welfare across time. This argument assumes that the strong sustainability thesis is false, and conversely assumes that natural capital can be substituted by manufactured capital, i.e. that there is an amount of money, for example, that could substitute for an aesthetic view or a wilderness experience. Radical environmentalists would argue against such approach on the basis of the intrinsic value of nature and its intrinsic unsubstitutability.

Furthermore, Mark Sagoff (2008) would argue that the premise of the argument upon which the necessity to pursuit economic growth is built is also wrong: assuming that environmental degradation will be pervasive to the point of making the environment very different from ours, future people cannot have a preference for something which they do not know or have not experienced before, such as a nice and clean environment. This point is ably explored by Martha Nussbaum (2001a) in relation to women empowerment in women-oppressive societies; she argues that preferences are

adaptive; the preferences of a person are formed in response to the specific environment in which that person is situated. For this reason - continues Nussbaum -, the theory which prescribes that a person's welfare consists of having her preferences satisfied should not be employed as the basis to organize the distribution of goods in a society.

The second route to appreciate how economic growth is built into our economic theory again departs from the impossibility of making value judgments concerning other people's preferences. In particular, given the well-established and well-studied fact of human competition with peers and given the impossibility of judging certain preferences as not really conducive to well-being from some vantage point, the result is an economic system that incites growth as a possible escape from the possibility of being left behind. Fervent critics of this system call it the "rat race" (Foster Wallace, 2009); others prefer the more neutral expression "keeping up with the Joneses" (Mason, 2000). Radical environmentalists note the obvious pointlessness of this dynamic: if everyone is better off in absolute terms, no one is better off in relative terms, which, according to the research, is what truly matters. Indeed, the satirist Henry Mencken defined wealth as "any income that is at least $100 more a year than the income of one's wife's sister's husband" (quoted in Perelman, 2011: 219) - his adult life coincided with the first half of the twentieth century, which explains both the low monetary figure (which, in today's terms, would be around $2000) and a certain taste for outdated gender roles. Popular culture is not the only source for these findings: in a survey made among students and academics at the Harvard School of Public Health, almost half of the respondents claimed that they rather live in a world where the average income is 25,000 and they earned 50000, than one where they earned 100,000 but the average was 200,000 (Solnick and Hemenway, 1998). These findings are also consistent with the famous work on happiness economics conducted by Richard Easterlin who discovered that increased incomes do correlate with increased happiness, but only up to a certain point (Easterlin, 1974). Once that point is reached - a recent study placed this point at $ 35,000 (Proto and Rustichini, 2014) - the correlation either stops and becomes negative or the curve flattens out. Indeed, both studies shed light on the fact that well-being is relational: in case of the Easterlin paradox, the curve flattens or turns negative because after immediate needs are met, a person tends to look for positional goods in order to satisfy preferences, i.e. goods that signal our position compared to our peers, friends or compatriots and whose desire for possession depends on other people's desire for possession (Hirsh, 1976). Easterlin's studies came under considerable attack since they first appeared in the 1970s: depending on how one treats the data, and the very choice of data, one can find results more or less in line with the Easterlin paradox. For example, a recent study concluded that there is no point at which the curve flattens or turns negative; instead, there is a point at which happiness increases at a slower rate compared to increases in income (Stevenson and Wolfers, 2008).

Radical environmentalists are used to attacking these arguments on three different grounds. (i) Top-down starting from the Easterlin paradox: if economic growth, having passed a certain point of income, does not make us happier, or substantially happier, what is the point of relentlessly pursuing it nonetheless? (ii) From the middle: if our

preferences for positional goods do not make us happier, and if pursuing them might even endanger our planet, we should educate our preferences so that we can find pleasure in simpler things, sharing experiences, being part of a community and helping others, etc. (iii) Bottom-up, starting from questioning what truly makes us competitive, if anything at all: radical environmentalists argue that competition among ourselves is less of a biological fact than a cultural one. It is an often-repeated anecdote: economics students are much more likely to play defect in prisoner's dilemma interactions compared to non-economics majors. It is actually a famous experiment: non-economics students tend to be more naturally cooperative, and then some of them educate themselves out of cooperativeness once they have assimilated the nuts and bolts of the utilitarian underpinnings of economic theory (Frank *et al*., 1993; see also Kirchgassner, 2005 for a review of the existing literature on similar experiments and whether economics "corrupts" people).

It is the pervasiveness of the *homo oeconomicus* model which elevates competition to a social trait worth preserving: as human beings ultimately chase self-interest and the satisfaction of their preferences - even altruism gets redefined as something that makes the giving actor happier -, competition becomes viewed both as a natural consequence given self-interest and scarce resources and, when embedded in a market mechanism, can be even made to work towards the greater good: more efficient production, cheaper prices, better customer service, etc. The utilitarian assumptions underpinning competition are openly questioned by the radical environmentalists associated with the degrowth movements by resorting to the literature developed by the MAUSS-group (an acronym which stands for Antiutilitarian Movement in the Social Sciences). In particular the work of Caillé (2000, 2004), who takes his cue from Mauss's triadic structure of the gift (giving, receiving, reciprocation). He argues that the utilitarian paradigm which colonized the social sciences cannot really explain one of the most fundamental traits of human sociality: that of reciprocity. Reciprocity, as displayed in gift exchanges, is both selfish and unselfish, and geared towards strengthening relational bonds instead of dispersing them into increasingly atomized societies (Caillé, 2004; Muraca, 2013: 157).

Growth and distributive justice: radical criticisms

The aim of this section is not to find out what growth can do for justice, but the other way around, what justice - or better: theories of justice -, can do for growth. Put differently, the aim of the section is to look at ways in which liberal approaches to distributive justice strengthen the pursuit of economic growth as an overarching policy objective. It is in this sense then that it is possible to speak about theories of justice as contributing to the necessity of economic growth when it comes to putting forward different overarching policy objectives than, and alternative to, economic growth.

It is important to note that the radical environmentalists who work on growth issues have been interested, for the most part, in discovering when, and under what

conditions, a distribution of resources is sufficient. In other words, they are interested in providing a critique of several distributive schemes in order to prevent our societies from exceeding scientifically proven planetary boundaries. Until quite recently, research in political philosophy did not offer much room to tackle these issues. Some political philosophers - most notably, Harry Frankfurt (1987) -, argue that a distribution of resources is just when everyone has sufficient resources to get by, and he remains largely uninterested in other distributive criteria. Clearly, these are two different meanings of "sufficiency" (Kanschik, 2016; Spengler, 2016). In one case "sufficiency" refers to upper limits to distribution which should not be surpassed, in the other, to lower limits under which people should not fall. In conjunction with the awakening of the environmental conscience in the '70s, however, some environmentally-minded philosophers have tried to understand whether a case can be made in favor of placing upper limits upon the distribution of resources within liberal theories of distributive justice, and whether or not there is a constitutive connection between liberalism and economic growth. Here I offer a reconstruction of some of the positions by departing from Rawls' theory of justice. At the end of this section I also explain why, according to radical environmentalists, the pursuit of economic growth is premised on a reductive idea of justice as social justice. I will hint, at this point, at arguments that are further developed in the next chapter.

There are several reasons why my treatment mainly concerns Rawls' theory: (i) it is immensely influential in political philosophy (Nussbaum, 2001b); additionally, most of the early work on the connection between economic growth and liberalism departs from Rawls' theory (Grey, 1973; Hubbard, 1978; Narveson, 1976; 1978); (ii) it enables me to establish a connection with, and a criticism of, some of the positions explored in the previous chapter, where Rawls' theory of justice as fairness is seen as informing some of the normative presuppositions of the narrative of civic environmentalism. Following this motivation, and for the sake of completeness, I will also briefly survey whether and how economic growth is embedded in liberal theories which presuppose an aggregative model of democracy. Finally, (iii) Rawls' theory is taken into consideration during the negotiations of various environmental regimes. On this last point, in particular, Okereke (2008) argues that while neoliberal ideas have successfully co-opted the sustainable development discourse, the ideas of liberal egalitarianism have been perceived as the only alternative whereby developing countries can make a dent in the dominant pro-market narrative. A sort of difference principle is implied, for example, in what has come to be known as the Common But Differentiated Responsibility principle (CBDR, Principle 7 of the Rio Declaration), especially when understood according to a "Northern interpretation" of it. In other words, to avoid admitting wrongdoing for emitting greenhouse gasses in the atmosphere during the period of strong economic development, developed states have always pushed for an understanding of CBDR as a principle of distributive rather than restitutive justice. The "responsibility," and with it the obligation to clean up the environment, in the wording of the principle, comes from the superior economic ability to tackle climate change challenges, and not from their past mistakes.

To appreciate in what way economic growth is a built-in presupposition within Rawls' theory, we need to take a look at the difference principle. As we have seen in the previous chapter, according to Rawls, departing from an equal distribution, it is possible to further push the Pareto frontier, i.e. to have gains without someone being made worse off. The difference principle is helpful in choosing a specific point on this Pareto frontier. But then why does Rawls allow for the possibility of Pareto improvements? And what does it involve?

Rawls subscribes to Hume's circumstances of justice, which are "conditions under which human cooperation is both possible and necessary." Moderate scarcity also features among these conditions. Indeed, under conditions of abundance, distributive justice would not be needed as everyone can obtain as many goods as they please without affecting the others. Under conditions of extreme scarcity, such as famines, on the other hand, people would live in a constant zero-sum game in which resources are immediately put to use to satisfy immediate needs instead of cooperatively worked on to obtain a bigger share in the future. With moderate scarcity, instead, it seems sensible to devise a system of cooperation so that everyone can get a decent share of the goods and even try to improve one's share. Given the assumption of moderate scarcity, it follows that everyone has a claim to as much as possible. In this situation, it is rational, for Rawls, that people are maximizers, because only in this way can they try to fulfill all their legitimate claims (Schramme, 2006).

Rawls takes the circumstance of justice of moderate scarcity at face value, as his theoretical building does not allow him to question to which extent the resources to be distributed are truly scarce. In other words, for Rawls, all aspirations for a share of primary goods are legitimate aspirations and, as not all aspirations can be satisfied, goods are scarce by definition. If it were possible to distinguish between legitimate aspirations and illegitimate ones, then also scarcity, instead of being assumed at the beginning and taken at face value, would be a real condition some of the time, and an unreal one at other times, when certain goods are available for all legitimate demands. However, to distinguish between legitimate and illegitimate aspirations, Rawls would need to venture into treacherous terrain. To question the legitimacy of demands he would need a substantive theory of the good. This, however, would take him to espouse a perfectionist theory of justice. Rawls' idea of the good for people focuses on the idea that one should pursue a rational life-plan, yet this is a very thin, supposedly formal, definition of the good.

From these two features of Rawls' theory - moderate scarcity and the avoidance of a substantive theory of the good - the justification of a system of distributive justice follows which allows Pareto improvement as a way to satisfy the greatest amount of demands without having to question their legitimacy. Rawls' difference principle is largely instrumental to this aim. It had been already noted in the first reviews of *A Theory of Justice* that in Rawls' ideal society citizens would act selfishly in the market and would vote altruistically at the ballot box by supporting a government which wishes to implement the difference principle (Grey, 1973). This is because there are in Rawls' theory two opposite tendencies, one towards equality, the other towards entitlements.

According to Grey, Rawls' difference principle is a clumsy attempt to reconcile these two souls of Rawls' theory, which are fundamentally conflicting. According to the first, which is closer to socialist systems of production, it should not be possible to bargain for more than an equal share by threatening to withdraw one's talents, because those talents are morally arbitrary according to Rawls' theory, and so doing would be viewed as a sort of extortion. According to the second, which is closer to capitalist systems of production, if those talents truly belong to the people and are not a social asset, then no coercion can be justified which imposes redistributing the fruits of a person's talents. However, if it is accepted that everything that contributes to different final outcomes in society is arbitrary, should not a just society produce the maximum possible output and redistribute it equally, without the need to introduce an economic reward for the people of superior productive capacity? By saying that people are entitled to a bigger share of resources compared to an equal distribution, as long as there is a Pareto improvement, Rawls introduces a system of economic motivation within his theory, and thus admits that people will be moved not by justice, but greed.

Narveson (1976, 1978), while agreeing with Grey on the impossibility of theoretically reconciling the two different souls in Rawls' theory, acknowledges that the difference principle is useful in motivating people to produce more; in an ideal society we would not need the difference principle as everyone would be moved to share equally and everything would be redistributed equally. The inequalities allowed under the difference principle are not strictly speaking just, but ultimately defensible: a sort of second-best principle which takes into account real people's social behaviors and attitudes.

In conclusion, once Rawls assumes moderate scarcity, he needs to make space for Pareto improvements upon the equal distribution of primary goods - which is the quintessentially just distribution following his idea that everything that makes a person more productive is morally arbitrary - to avoid turning his theory into a perfectionist theory of justice. The difference principle is instrumental to this system as something useful to pick the most egalitarian distribution on the Pareto frontier while at the same time not stifling the desire of people to get a bigger share of the goods. The introduction of such economic motivation through the difference principle follows from the need to overcome moderate scarcity, and ultimately, it is the priority of the right over the (substantive) good within the Rawlsian theory of justice which justifies a system in which economic growth becomes the price to pay if one wants to keep avoiding having to distinguish between legitimate and illegitimate claims to appropriate primary goods.

Liberal theories of justice which decide distributive issues by aggregating political preferences, instead of subjecting them to political deliberation like Rawls', seem even more ill-suited to prevent that economic growth be chosen, implicitly or explicitly, as an overarching policy objective. One of the few liberal aggregative theories which openly recognizes the environmental risk of pursuing growth is provided by Marcel Wissenburg (1998). According to him, liberal institutions are predicated on the possibility of reconciling antithetical preferences, and economic growth need not be the only way to reconcile these preferences, even though it almost always is the case. He is

willing to claim that political preferences are not always equally legitimate, and resorts to a so-called restraint principle to decide which preferences are worthy of being satisfied first, and which are not. He claims that conditional rights, which are wants for frivolous possessions such as red sport-cars, should be distributed in a way that does not reduce the scope for realizing unconditional rights, which are basic needs such as food and shelter. He also claims that, if possible, conditional rights should remain available for redistribution. This reasoning applies to the members of one generation only, but it can be extended to future people by noting that successive generations overlap for a certain lapse of time. In other words, the pursuit of economic growth could be limited if it impedes that future contiguous generations could realize their unconditional rights. The problem with Wissenburg's proposal is that, while in theory the pursuit of illegitimate preferences could be curtailed, he still retain the idea that the state should remain neutral among competing doctrines of the good, and this, according to Piers Stephens (2001), restricts the capacity of his theory to "green" liberal democracy. Furthermore, by treating social preferences as given, Wissenburg is not willing to argue in favor of a state which assumes the role of preference-shaper; and by leaving under-theorized the account of how people come to form green preferences, Wissenburg simply points to a desirable form of liberalism without telling us how to get there.

There is a broader claim to be made about economic growth in the context of liberal theories of distributive justice. We have seen that economic growth is premised on making certain types of inequality justifiable - a point, this one, also developed by Ted Trainer (2012). The view upheld by Rawls is that citizens would not be prone to supporting egalitarian justice if they did not see that their efforts, talents, and merits are somehow rewarded compared to those who lack those qualities. By incorporating this view into his theory, Rawls' distributive justice is premised on a very anthropocentric concern and, within this anthropocentric framework, on an egoistic concern. From the point of view of radical environmentalist scholars, liberal distributive justice leads to a reductive understanding of justice - narrowly focused on social, political, and economic relations - because it departs from distinctively human motivations and intuitions which are premised on a human ontology.

Naess proposed instead to promote an environmental ontology as superior to an environmental ethics grounded on a human ontology because, according to him, what determines our relationship with the natural world are our consciousness and experiences. In other words, if we manage to recognize the natural world as part of us - Naess talks about "identification" - there would be no need for moral exhortation to do the supposedly right thing, nor would a person feel pressured to do it (Naess, 2005). This sort of argument seems to be implicitly accepted by Rawls, who recognizes that his theory of justice as fairness excludes non-human animals, plants, and nature in general on the basis that they cannot participate as moral parties to an agreement and uphold principles of justice. They could, however, be part of a more environmentally inclusive distributive justice, provided that a different "theory of the natural order and our place in it" becomes available (Rawls, 1971: 512), but such is not the case.

CONCLUSION

I started this chapter by introducing radical environmentalism in terms of a negative narrative which claims not only that markets and economic growth are bad for the quality of the environment, but which also refutes the more recent environmental narratives (ecological modernization and civic environmentalism) which try to portray economic growth and environmental quality as mutually achievable. I then specified in which ways these two claims could be analyzed through the lenses of two central notions within radical environmentalism circles: the perils of the commodification of nature and of economic growth for the quality of the environment. Commodification and economic growth are the two issues around which disparate positions in environmental thought coalesce in order to criticize the socio-economic arrangements premised on the normative presuppositions undergirding the competing narratives of ecological modernization and civic environmentalism. On the one hand, commodification is a prerequisite of efficient allocations and just distributions; on the other hand, economic growth is the consequence of such efficient allocations of resources and of distributive schemes which remain neutral among substantive doctrines of the good.

More specifically, the first part of the chapter - on commodification - is partly historical and covers the history of the idea of 'commodification' in radical environmentalism literature. To identify the normative assumptions informing radical environmentalism, I first systematized the commodification debate by distinguishing questions about whether nature *can* be commodified from questions about whether it *should*. Technical "can" questions aim to uncover the normative presuppositions governing consequentialist arguments against commodification. Normative "should" questions aim to uncover the normative presuppositions underpinning mostly deontological arguments and a few consequentialist ones. In this part of the chapter, I presented the debate on commodification as hinging on normative presuppositions linked either (i) to anthropocentric stances which, however, depart from a different conception of nature than that usually conveyed by economic theories and liberal theories of distributive justice. Nature is portrayed by radical scholars as poised in a delicate balance; its functions and inner workings are, for the most part, still inaccessible to us, the human beings. Or (ii) the debate is linked to eco-socialism, which departs from a principle of justice according to which natural resources should be enjoyed collectively as public wealth. Or (iii), finally the debate turns on non-anthropocentric stances which stress the intrinsic value of natural processes, functions, and resources.

The second part of the chapter - on economic growth - sought to better characterize which aspects, specifically, radical scholars are concerned about when they talk about economic growth. They are mostly concerned about (i) the fact that, notwithstanding the pomp and circumstance of the supporters of the narrative of ecological modernization about decoupling growth from resource depletion, such decoupling has yet to be achieved on the large scale of the global economy; (ii)

economic growth, not per se, but as an enduring and overarching policy objective. While, according to radical environmentalist scholars, the most sensible response to these two concerns would be, on the part of our decision-makers, to start "managing without growth," this does not seem to be happening. The final part of this chapter asks what makes economic growth a necessary pursuit in our socio-economic systems. In order to do so, I offered a reconstruction of radical positions as a critical excavation of the normative presuppositions - welfare economics and liberal theories of distributive justice - which inform ecological modernization and civic environmentalism. In welfare economics, economic growth is (i) an insurance against the possibility that the preferences of future generations will be radically different from ours and (ii) it is the "natural" consequence of a social system grounded on competition. In Rawls' liberal theory of justice of Rawls, economic growth is the price to be paid not to have to dirty one's hands with the thorny problem of defining what counts as a substantive good while, at the same time, allowing that justice be pursued through the pursuit of an anthropocentric and egoistic motivation. Both these presuppositions are grounded on an understanding of human motivation premised on a human anthropology, which is roundly rejected as reductive from within certain radical environmentalism circles - notably, deep ecologists. These issues will be taken up and explored further in the following chapter.

CHAPTER V
CLASHES, CONTINUITIES, AND BLIND SPOTS: AN ANALYSIS OF THE THREE ENVIRONMENTAL NARRATIVES

It is one of the oldest tricks in the book. The book is called "Ars Oratoria" and everyone who has been exposed to a great deal of argumentative reasoning has implicitly read it. The trick is called climactic order. It is the idea of arranging arguments in a *crescendo* from the weakest to the strongest. Lawyers and politicians use it quite often: in presenting the various possible scenarios for how a specific event might have unfolded, they start from the most implausible ones and they work their way through the more convincing ones; they take their audience by the hand by carefully crafting a weak frame of reference against which they compare their preferred scenario, with the aim of steering the conversation or the narrative towards a particular desired direction. Sometimes, however, when it is not clear which of the different positions or arguments can be legitimately considered stronger or more plausible, the sheer act of arranging them in a specific order might *per se* steer the discourse in a specific direction. Indeed, there is a sort of expectation towards climactic order; readers and listeners often assume that what comes later is also better. Authors and speakers can and sometimes do exploit this expectation. I might be accused of having done precisely this.

The order in which I decided to arrange the various views in environmental politics - from ecological modernization to radical environmentalism - partially masks the fact that none of these views is immune from criticism. This is the fundamental insight from which to start the work to be done in this chapter. The ground covered in the previous chapters leave us with some indications as to the general argumentative lines pursued by each narrative in response to the others. In other words, it suggests how each narrative can be criticized from the external point of view of a competing narrative. But it is now time to zoom in on these various relations and make direct comparisons among the different narratives and relative normative presuppositions, in order to show how each narrative is built by improving upon the perceived shortcomings of other competing narratives (continuities), where they directly clash, and what the normative substratum of each narrative is more attuned to grasp and what remains outside its visual cone. In other words, environmental narratives are not born and do not develop in a vacuum. Rather, they develop in continuity with each other, while also seeking to redress concerns which are considered as unjustifiably too central in competing narratives (clashes), perhaps because certain concerns which are considered central to a narrative are sidelined in competing narratives (blind spots).

Continuities, clashes, and blind spots are the three categories I am going to employ to analyze the three narratives - ecological modernization, civic environmentalism, and radical environmentalism - and their respective normative presuppositions.

However, before going forward, it is necessary to pause a little and dedicate a few words to some preliminary issues: we need to better delimit the field in which these different narratives are allowed to criticize, clash with, and improve on each other.

HOUSTON, WE *ALL* HAVE AN *ENVIRONMENTAL* PROBLEM

The research endeavor of comparing the three environmental narratives in order to see where precisely they differ the most is made possible by the fact that at least on some fundamental level it makes sense to compare them to each other, i.e. all the scholars working within the different narrative strands agree with each other on something. In the terminology employed throughout this book, this fundamental agreement is not so much a continuity among the different narratives; they are not specific values or normative presupposition which move across different narratives. Instead, it is a common playing field. This much is certain across the three narratives surveyed in the previous chapters: they all agree that business-as-usual is unsustainable in the long-term for human life on earth and for other valuable entities (however one might want to define "valuable"), i.e. they all agree that an environmental problem does exist. Furthermore, they all agree that something should be done about it. This does not seem to have limited the field of inquiry massively, yet it already excludes notable scholarly positions which do not agree that an environmental problem exists, while also positing claims related to the environment.

This boundary excludes, at the right end of the environmental spectrum, a set of positions which are often mistaken with the narrative of ecological modernization because of some affinity between the two concerning the role of economics and of markets in bringing environmental protection. I briefly reviewed these positions in the previous chapter and called them radical market environmentalists - as opposed to moderate ones more in line with the narrative of ecological modernization. According to these positions at the right of ecological modernization, the market forces make it *theoretically* impossible for something to be a problem and not at the same time be tackled; in other words, an environmental problem - or any problem - exists only when a demand for its solution exists. The price mechanism and *laissez-faire* suffice for a problem to be identified and addressed. This is different from the position taken by scholars working within the strand of ecological modernization who do not solely rely on economic theory in order to identify policy problems but instead work at the crossroad of different social domains: a problem is identified not only by an economic demand for its solution but also by scientific research which might or might not make it all the way into the public sphere and thus create a demand for its solution; its solution seeks to harness market forces by creating a suitable economic environment for them, yet this environment might not necessarily be one in which government intervention is

reduced to a minimum. And those who make tackling environmental degradation possible are not only entrepreneurs and consumers but crucially also public officials who craft market-friendly legislation. Scholars working within the ecological modernization strand do not disapprove of taxes, cap-and-trade or other economic mechanisms to solve an environmental problem.

Similarly, this boundary line excludes, at the left end of the environmental spectrum, a set of positions which go beyond the anti-commodification and anti-growth message by which I sought to summarize the radical environmentalism narrative and put forward an almost religious idea of the earth which in its entirety is the only locus of moral concern. Furthermore, these theories, which take their cue from the research done on the Gaia hypothesis (Lovelock, 1972), picture planet Earth as an entity which is so much bigger and all-encompassing, a self-regulating mechanism always more powerful, that any possible human intervention upon it is bound to be negligible in the long run. Humans, with all their plastics, heavy industry, and unnecessary waste of natural resources are but a temporary nuisance in the huge timescale of planet Earth. These positions are seldom held by people who use them as an actual justification for business-as-usual, yet these two positions are certainly compatible (Carlin, 1992).

This, then, has to be the starting point for our analysis: the environment is something worth taking care of. This common ground does not have to necessarily depend on a shared understanding of the environment: one person might want to take care of the environment for religious reasons, i.e. the protection of a sacred space, whereas another one might have economic reasons. However, when it comes to the health of the environment, it is often the case that a shared understanding does exist: fishermen complain about falling catch rates, Inuit hunters about the thickness of the ice, mayors of coastal cities about having to spend more on adaptation measures against rising seas and more extreme weather events. There is thus a shared picture of the state of the environment and a shared understanding of the environment as something worth taking care of, albeit for different reasons. But if this much is agreed, what "taking care of the environment" means concretely and how such a goal should be pursued are the two issues which inevitably raise deep conflicts.

CLASHES

The preceding three chapters have been built around the different ways in which three environmental narratives relate to the two normative concerns of efficiency and justice. By so doing, I have implicitly explored how the three narratives differ from and clash with each other. In this section, by following the normative presuppositions analyzed before, I will further explore these clashes and give a finer-grain picture of where rifts between narratives are to be located. To make these clashes emerge, I will, in particular, take a look at what is believed to be, within the different narratives, the type of information which is most relevant to policies of environmental protection (*relevant information*). Furthermore, I will clarify what role the individual people have in order to

facilitate environmental protection (*individual agency*), and where ideally they are supposed to collectively meet in order to achieve this goal (*locus of decision making*). These different arrangements will give rise to different ideas concerning the most appropriate *model of governance* to be employed in order to make environmental protection possible.

Ecological modernization

Ecological modernization scholars pursue a political model of environmental protection which can be termed technocratic-aggregative. According to ecological modernization scholars, as we have now seen in a number of different ways, environmental protection can be pursued by harnessing market forces; consequently, the information which is most relevant to accomplish this endeavor is the *economic preferences* of individuals. These preferences allegedly contain everything which is important (how this has come to be the case, we will see it later, in the section on blind spots) to make policy decisions: what people want and how badly (i.e. the rankings of these wants). Furthermore, these preferences can be aggregated and disaggregated at will according to different indicators to yield a fine-grained picture of the well-being of people: spatial and temporal distribution of preferences; their distribution according to class divides; trends and patterns. It follows that knowledge about economic preferences is incredibly powerful information in the hands of those who are in the position to steer the administrative machine in order to pursue societal goals. This is generally a good thing.

This understanding of what is relevant is built upon a very specific idea of who these individual people are and of the type of society they live in. Individual persons are, first and foremost, understood as consumers. They have preferences, desires, tastes which are taken by the policy-maker as largely exogenous and treated as normatively neutral. Of course, it is not denied that choosing the color of one's pants is somewhat different than choosing between whether or not to build a dam; yet Rational Choice Theory has proven to be a method flexible enough to be adapted to different situations which involve choosing between options. One fundamental characteristic of the individual-as-consumer model put forward by this narrative is that individual people have well-structured preference rankings which are supposed to recompose all the internal conflicts a person might have. Yellow pants or red pants? According to the theory of rationality, there can be only three possible choices: either one option is preferred, or the other, or the two options are totally indifferent. This approach to choices also remains valid when more complex choices are at hand: as a private individual, I would like to be able to freely enjoy my polluting vintage car on b-roads as well as in city centers; as an individual embedded in a community which values the environment, I would like to see steeper taxes and limitations on polluting vehicles. But which of the two do I give my preference to? Again, one, the other, or indifference must be the answer. This means that both options must be placed on the same ranking: the option which further people's interests as well as the option which involves one's

morality and commitments. This is possible because allegedly moral choices can be converted into the language of well-being if they "make us feel better"; i.e. doing the right thing also maximizes our well-being. I will review in the section on blind spots below the origin of this idea of economic preferences as an all-encompassing normative currency, and its problems.

The model of the individual-as-consumer elevates efficiency to a standard not only to be achieved *at the end* of the process of decision-making but also *during* this process: the work of thinking and balancing and compromising between preferences is already being done when the preferences "go public," revealed in market behavior or as responses to surveys. There is, in theory, no need to organize deliberation platforms or capacity-building conferences and workshops; briefly, no need to educate people. Furthermore, the model implies that private and public are one and the same, the public is simply the collection of many private concerns, preferences, desires, and wants which meet on a common platform to exchange things: the market.

It is easy to get carried away by words. Matthew Arnold called the mentality of the commercial and industrial class "philistine" because it was depriving people of the pursuit of higher goals in life (Muller, 2007: 212). Before that, consumerism already received a bad connotation because of the potentiality of the new powerful bourgeoisie to subvert the traditional aristocratic social order through material means (Stearns, 2001). And going back still further, the whole of Western culture has always had an ambivalent relationship with those who dedicated themselves to the acquisition and exchange of goods. However, when talking about the type of individual constructed by the normative presuppositions informing the narrative of ecological modernization, "consumer" is here intended in technical terms as the individual who chooses rationally according to her preferences, which might or might not be petty and mundane, and where rationality is in turn defined in a very specific way in terms of transitivity and completeness.

Ultimately the merit of this view of politics, which elevates efficiency to its normative standard, and economic preferences as the type of information most relevant to achieve it, rests on whether we think of ourselves as being capable of carrying the computing effort implicitly demanded of us by the theory of rational choice, and whether it is desirable at all. On a descriptive level, the issue is far from being settled. Against a definition of rationality in terms of having complete and transitive preferences, and the capacity to weigh options, it is easy to prove that human beings do not always live up to this standard of rationality. Yet it can be doubted whether these observations are enough to falsify a theory which in its most basic applications - such as the theory of market equilibrium as the intersection of supply and demand curves - has proven to be remarkably robust and sufficiently accurate. But even if we are not this admirable computing machine that Rational Choice Theory pretends we are, this does not exclude that we should not try to live up to the standard of rationality of the *homo oeconomicus*. One could well argue that, for all its limitations, the welfare economics presuppositions upon which the narrative of ecological modernization is built still provide us with a blueprint for a materially prosperous society worth living in. And this

has always been one of the best arguments in favor of the reliance upon economic instruments and their ability - in certain situations - to enlarge the economic pie: to remind critics that before the Industrial Revolution and before the utilitarian mindset became prevalent in Western societies, even one of the most splendid kings of Europe - *Le Roi Soleil* - had to have servants who would continuously agitate the wine during winter banquets to prevent it from freezing.

The model of governance favored by the scholars working within the ecological modernization strand relies heavily on the figure of the expert who appears at various stages of the administrative machine: economists are needed when preferences need be aggregated into social welfare functions, and panels of economists are summoned when controversies arise about the most appropriate ways of aggregating these preferences. Economists are also needed to extrapolate economic preferences from surveys and from observations of consumers' market behavior. Earth scientists research the boundaries of the earth's vital support systems (such as ocean acidity, freshwater use, biodiversity loss, etc.) and prepare different scenarios under which such boundaries can be hit or not. Researchers - both scientists and economists - are also consulted on the economic feasibility of responding to each of these different scenarios.

According to this model of governance, which might be called technocratic, researchers and scientists are responsible for choosing both the policy objectives and the means to realize these objectives, while leaving the implementation of the proposed solutions to policy-makers (Edenhofer and Kowarsch, 2015). It is not denied that the definition of policy objectives might involve grappling with ethical values. However, it is argued that researchers alone have the conceptual apparatus to negotiate all the information and values involved in, for example, large-scale environmental assessments. Furthermore, large environmental assessments, such as those made by the IPCC, involve not only the work of scientists but also of economists, philosophers, anthropologists, sociologists - in brief, professional figures who are specifically trained in dealing with value questions. According to this model, researchers should softly yet resolutely whisper into the ears of policy-makers in order to advise them that the policy goal to be pursued by the environmental regime is, for example, to stay below a 1.5°C rise in global average temperatures above pre-industrial level, and what to do in order to achieve this target. They arrive at such an estimation by taking into consideration the impacts of rising temperatures on food systems, animals, plants, human population, and their historical pattern of migration in response to changing environments, costs of later mitigation efforts, and much more data. What is implied in all of this is that researchers alone can compile all information in a rigorous way and arrive at a sound policy objective.

Civic Environmentalism

Civic environmentalism scholars pursue a political model of environmental protection which can be termed democratic-participatory. According to civic environmentalism

scholars, the idea that environmental protection can be pursued through market mechanisms alone runs into two fundamental issues: first, prices are sensitive to a number of distortions which impact the distribution of goods in society; second, handling those economic preferences requires both making use of a great deal of technical expertise and - what is truly contentious - passing a lot of behind-the-scenes value judgments. Civic environmentalism scholars are skeptical of the fact that value matters can be settled with a technical approach. This is why participation and democratization of politics are fundamental aspects of civic environmentalism.

Ulrich Beck was among the first to understand that the new political currency of modernity - risks - offers resistance to the methods of science (Beck, 1986). In particular, since the 1970s, modern advanced economies had to increasingly deal not only with the redistribution of wealth, but also with the distribution of risks. Modern advanced economies - in Beck's reading of modernity - are no longer primarily focused on overcoming scarcity but in overcoming - or better minimizing, disposing of, reinterpreting - risks, i.e. the by-products of societies which have plenty. Whereas a chemical analysis of potable waters in a specific area can return a list of all the chemical elements in the waters, it cannot tell us what are the acceptable levels of these components. In its commitment to remain value-free, science - chemistry in this case - seems ill-suited to establish what are the acceptable average and absolute levels of the toxic elements in drinking water. And these are particularly value-laden questions which bear on a person's idea of what, ultimately, is a good life. Beck himself speculated that with modernity made reflexive of its own risks, and with it of the need to define and distribute such risks, new spaces for public debate and popular decision-making would have opened up (Beck 1986 [2013: Ch.2]).

Sheila Jasanoff paints a similar picture in her study on the role of scientific committees advising the U.S. regulatory agencies such as the Environmental Protection Agency (EPA) and the Food and Drugs Administration (FDA) (Jasanoff, 1990). Far from being authoritative figures always speaking in unison, scientists disagree, are often affiliated to various political think-tanks, they are ideologically committed, they are willing to negotiate and bargain. Scientific committees are as politicized as any other political institution. The debate on anthropogenic climate change in the last twenty years offers a stellar example of the politicization of science: disagreements were amplified in the media, research from skeptic scientists had been lavishly funded by foundations linked to the coal and oil industries and given more voice than it deserved (Dunlap and McCright, 2011), the phantom of a lack of scientific certainty had been invoked to stall much needed early mitigation efforts. This was not just peculiar of the debate on climate change but of all issues involving significant risks to human beings which reach political attention, and which could potentially mobilize a lot of financial resources. The debate that led to the phasing out of leaded gasoline went through a very similar path (Denworth, 2008): Patterson's research linking leaded gasoline to mental illness was first ostracized and the phasing out of leaded gasoline was slowed down for decades by reversing the burden of proof onto those who claimed that it was poisonous - Robert Kehoe's famous "show me the data" paradigm (Nriagu, 1998). Whereas Beck

depicted scientists as ultimately incapable of grappling with value-laden issues, Jasanoff simply argued that when they do try to grapple with these issues, they *de facto* stop wearing their scientist's hats. In their advice, they might well be informed by science, but their decisions are then driven by normative commitments external to their disciplines.

In this general panorama in which the sciences' spokespersons themselves - and economists in the case of economic science - are seen either as partisan as any other political actor or unable to deal with value-laden questions, it seemed almost natural to turn to mechanisms of participation and democratization to solve the problems of perception and distribution of environmental goods, bads, and risks. After all, in the late 1980s and 1990s, various "end of history" arguments in favor of liberal democracy seemed still very plausible, and this momentum was also felt in the domain of environmental politics. Behind this movement of democratization at the heart of civic environmentalism stand the normative presuppositions of liberalism in which policy decisions are ultimately grounded on *political preferences* (aggregative model) and *reasons for action* (integrative model). According to the aggregative model of democracy, which is grounded in Rational Choice Theory, and which is more closely linked with the paradigm in which participation is instrumental to providing information, political preferences are largely similar to economic preferences: they are stable over time and exogenous; the difference with economic preferences being the content and holders of these preferences. The economic preferences are held by consumers, whose theoretical underpinnings, as we have seen, are linked to the *homo oeconomicus* idealization. Political preferences are held by an individual allegedly moved by "enlightened self-interest" (Judt, 2015: 307). According to the participatory model of democracy, political reasons for action are not stable, they can be transformed, and are endogenous to the deliberation. What determines the final shape of policies within this integrative model of democracy does not depend on the particular desires of the individuals but on the underlying political values which individuals bring with them into the deliberations. In other words, they are willing, through collective reasoning, debate, and argumentation to change their opinion on what is the common good.

This understanding of what is relevant in decision-making is built upon a very specific idea of who these individual people are and of the type of society they live in. Individual persons are, first and foremost, understood as citizens; surely, they have economic preferences, tastes, and desires, but these are not supposed to be transferred into the public domain. The public domain is not an empty political space in which individuals meet and preferences are simply added or subtracted, but a place which supposedly reflect the values a community gives itself and by which it intends to live, and a certain degree of material equality is one of those values. This public space is created by pursuing in the appropriate venues (from local gatherings to parliaments) a work of shared manipulation of the preferences of the citizens through voting, or of mutual reasons-giving through argumentation and deliberations. Reasons for action, in particular, need to be defended by resorting to arguments which can be assumed by other citizens and not by referring to some internal mental state, which is by definition

inaccessible to external actors. The resultant force coming out of this process of mutual justification is - according to the scholars following the civic environmentalism strand - the all too elusive "public interest" or "common good." Behind this thicker understanding of society stands an idea of individual people as able to differentiate between private desires and public values, and behind it, in turn, stands the idea that it would be a categorial mistake to put on a par - i.e. on the same preference ranking - choices which further our private interests or desires and choices which we make out of a moral commitment to the public interest. This point has been made multiple times, yet perhaps never more cogently than by Amartya Sen who, in an article titled *Rational Fools*, argues that the *homo oeconomicus* might well increase economic efficiency but is a "social moron" (Sen 1977: 336).

The model of governance favored by the scholars working within the civic environmentalism strand relies, too, on experts, yet they enter the decision-making process in different stages. Researchers and scientists are needed to provide different scenarios of where the earth might be going in terms of environmental sustainability. Economists, philosophers, and sociologists might be called, too, to clarify what are the implicit value judgments involved in choosing one policy objective rather than another. Experts are also called again at a later stage of policy-making when, once a policy objective has been decided, the appropriate means need be found. According to this model of governance, which might be called participatory, policy objectives are settled by the elected politicians who, having a more or less direct connection with the public, and having been informed through voting and collective reasoning of the community's public interest, are better suited to decide upon value-laden issues. For the same reason, political decision-makers have a broader scope in an integrative model of democracy than in an aggregative model thereof. Being presented with some initial research concerning the impacts of climate change, decision-makers decide the mitigation target to pursue - let's say 2° C rise above pre-industrial levels -, which will reflect the political priorities and underlying values of the represented people and leave to researchers the task of finding the means to achieve this: market mechanisms, a change in the regulatory landscape, or other measures. Afterward, a particular set of solutions proposed by researchers is approved by decision-makers and, eventually, implemented (Edenhofer and Kowarsch, 2015).

Radical environmentalism

Radical environmentalism scholars pursue a political model of environmental protection which can be termed emancipatory and anti-*status quo*. What characterizes their worldview is a rejection of the fundamental features of our modern societies, which can be cashed out both in terms of a refusal to commodify nature and natural resources, and in terms of a refusal of economic growth as the main policy objective to be pursued by our political and economic systems.

The biggest source of concern for those who hope that the movement towards increasing democratization could provide some corrections to the distortions brought about by market mechanisms is that the world of politics is far from being immune to the influences of players who play the political game with profit motives. Dryzek (2013: 119) offers a brief yet illuminating overview of the standard tools and practices which big corporations have at their disposal to tilt the environmental debate in the public sphere to their favor. Big corporations can and do sponsor organizations and think-tanks with "environmental-sounding names" which actually challenge established science on issues of climate change and environmental degradation. Not infrequently, corporations offer employment opportunities to those activists who once were in the enemy camp. Advertising material, which often puts forward corporate images greener than actually would be the case, is yet another strategy by which corporations can alter the terms of the public debate. The threat of disinvestment, a sort of retaliation in case strong environmental regulations were to be enacted, could also affect democratic policy deliberations. The more general point to be drawn from this brief list of corporate practices is that to a certain extent it is inevitable that the policy debates, and with it the political ideas of the citizens, are affected and distorted by particular interests. This is the consequence of a political system - capitalist democracy - in which private actors are not only allowed but even encouraged to provide essential public services. This system *de facto* makes business and corporate actors privileged interlocutors of decision-makers. In other words, the political model of civic environmentalism does not not only eschew market capitalism but, in certain cases, it does not even manage to offer those counterweight mechanisms it was intended to provide because the lines between regulators and regulated are sometimes too blurred for democracy's own good. For radical environmentalism scholars, this is the umpteenth confirmation that this whole system of environmental protection which seeks to gradually and incrementally green the *status quo* is fundamentally corrupt.

On a more fundamental level, both ecological modernization and civic environmentalism are compatible with a stance in environmental politics which preaches the stewardship of nature (Ehrenfeld, 2014) - something that in the last two decades has become a buzzword expression. In other words, all these positions bestow an important role on human beings. There is, one the one hand, a more or less complacent awareness that we now live in the so-called Anthropocene epoch (Crutzen, 2002) - the epoch in which human activities have an impact on global earth systems - and, on the other, the awareness that only human beings themselves could limit such impact. Human beings are thus the guardians of the gates through which policies and activities which have an impact on the earth system as a whole need to pass. This role is bestowed upon them because of their unique capacity for critical reasoning, which is at the same time a curse and a blessing: a curse because it is what makes us capable of dominating (or believing we could dominate) nature; and a blessing, because it could stop this relationship of dominion from turning for the worse. The concept of stewardship thus incorporates this idea of the uniqueness of the humans as beings both

inside and outside nature. It is precisely this uniqueness of human beings which radical scholars dispute.

Radical environmentalism scholars who focus on the commodification side of the debate find environmental problems to be a consequence of the way human beings have come to experience the natural world. Until quite recently in human history, the idea that nature is out there for us coexisted with the notion of it being capricious, powerful, surprising, dangerous, a sort of wild animal which human ingenuity can overpower, but never tame. With René Descartes (1637), a change in attitude towards nature starts materializing: nature is not only out there for us, but it is also somehow more predictable, more "mechanistic."[1] Instrumental to this change of perception is a neat separation operated by Descartes between the physical world and the mental or psychological world. According to the method of systematic doubt which bears his name, the French philosopher accepts as true and indubitable only that knowledge which is formed by "clear and distinct ideas"; the result of this is that the psychological realm attains a certainty of itself which does not hold for the physical one. According to Descartes, there is thus a fundamental ontological difference between the two domains which never come in contact with each other. The perception of this profound dualism facilitated what was - and in many ways still is - a quintessentially modern Western way of looking at the natural world: as a machine, behaving according to mechanical laws which can be discovered and used to our own advantage. This is not a horizontal distinction which keeps apart two domains of equal dignity, but a vertical one: there is a hierarchical relationship between a knower and an object of knowledge which is analyzed and dissected through a rational and scientific method. This rupture in the way nature is experienced, according to the radical scholars, is thus characterized by a lost relationship with nature, which was allegedly more genuine, and which instilled a sentiment of humility in men, due to their belief of being a negligible element in the natural order. The theme of humility particularly resonates among those radical environmentalists who resolutely reject the assumption that human beings should have any specific role in the management of nature (Pianalto, 2013): there should be no management of nature to begin with. Not only man does not stand in a relationship of lordship over nature, but he is not even a *primus inter pares*, which would make him a steward; he is simply a member of a bigger community (Lovelock, 2006; Palmer, 1992 [2006]). Practically, this humility would manifest itself by experiencing nature as it is in all its aspects, appreciating it, and ultimately withdrawing from interfering with it. This would amount to a very specific program of restoring nature: it would not be a

[1] Here I follow Tim Hayward's reconstruction of the causes behind modernity's attitude towards nature and the environment (Hayward, 1995). However, boundaries are always contested and the claim that Descartes is *the* philosopher who ushered the Western world into a modern understanding of the relationship between man and nature is contested, to say the least. "Descartes" may well be a placeholder for many other intellectuals who around the same period have treated nature as an external entity to be analyzed in a detached way, such as Isaac Newton or Galileo Galilei. Lynn Townsend White Jr., for example, goes further back and claims that "the historical roots of our ecological crisis" (the title of its most famous article) are to be found in the Judeo-Christian thought which permeates the Western mode of thinking concerning the relationship between man and nature (White Jr., 1967)

managerial program in which trees and vegetation in general are planted and animals reintroduced into their original habitat, but simply it would let nature run its course and be, by withdrawing all human intervention altogether. Geo-engineering interventions would have no place, as they are extreme and paradigmatic cases of human hubris (Kiehl, 2006), and market-based mechanisms would be similarly opposed as they necessarily rely on a concept of nature which is disenchanted, divided into human categories and managed according to our needs and instrumental to our human affairs.

Radical environmentalism scholars who focus on the growth side of the debate are mostly concerned on how commodification has being pursued and what it led to. The mechanisms and methods which were supposed to provide us with the critical instruments to pursue the ideal of sustainable environmental protection - economic theories, principles, and idealizations (ecological modernization), the mechanisms of participation behind the movement of democratization (civic environmentalism) - did not live up to this task or, worse, facilitated and implicitly justified the exploitation of nature which has come to be associated with the current period (starting with the Industrial Revolution) of economic growth and material wealth. Whereas scholars following the narrative of ecological modernization and civic environmentalism see the utilitarian mindset underpinning welfare economics as instrumental to a better management of natural resources, the critics of this mindset see it as something which changed our very perceptions of nature.

As the market forces historically begun to take center stage in Western societies, two consequences unfold: preference satisfaction became a normative currency and the old value systems disintegrated, and with them a cultural framework which had the power to provide appropriate guidance to individual choices. Family, religious and political institutions all saw their power to guide behavior dwindle in the face of the alluring message of markets that there are no intrinsically wrong choices, apart from those ourselves deem so, individually or collectively, through conventions. According to radical environmentalists, our perception of nature and our understanding of the relationship we should maintain with it witnessed a similar fate. The old value system, in which nature carried an intrinsic normativity, gave way to fluid arrangements in which everything is valued so long as it is, or can be, exchanged on the market. In other words, we might well save nature but at the price of commodifying it, and this will have a lasting impact on how we relate to nature, to the point of undermining its non-economic appreciation. Once this intrinsic normativity has been forgotten, the protection of the environment will depend solely on the vagaries of the markets.

Both the radical environmentalism scholars who focus on the commodification side of the debate, those who focus on growth, and those who deal with both issues agree on certain fundamental issues. Individuals in society are enmeshed in a thick net of reified meanings of which they are seldom aware. Whereas in the narratives explored above individuals are actors who engage in different types of active behavior in the public space - as consumers they buy and sell in the market, as citizens they meet, talk, and vote - here individual persons are at first passive, subjected to more powerful forces, and are not able, by themselves, to change anything in the society. These

powerful forces are what makes the public space hostile, and which forces sensitive people to withdraw from it, sometimes in a literal sense (Henry David Thoreau's retreat to Walden Pond continues to provide the ideal model of resistance to generations of radical environmentalists), sometimes only figuratively. These forces are powerful not in the economic or political sense - or at least not primarily so - but in their capacity to guide behavior through ideologies and the construction and imposition of those reified meanings. If this is the case, what is needed is a criticism of the mainstream narratives that unmasks their implicit assumptions, cases of problem closure, etc. There is no pre-defined set of data on which the radical scholar can safely rely, although it seems that general culture about the intellectual debates which shaped our current understanding of the world, and knowledge and research into the history of ideas, all have an important role.

However, there is often a wide gap to bridge between this type of research and green policies or actions of protest on the ground which can be said to be inspired by such research. In other words, whereas this research is publicly available, albeit not always easily, it is not acted upon by the sectors of the society which should allegedly steer the communities towards greener policies. "Enlightened individuals" also have an important role to play within this narrative; they are often environmental scientists or highly educated people turned into environmental activists (Vandana Shiva is a case in point), who make use of their technical insights into a humanistic or scientific domain to translate complex research into understandable facts ready to be turned into actions.

Political change is then achieved through what has been called the "politics of critical social science" (Fay, 1987). In other words, change is not achieved through the manipulation of some external variable (preferences, data) but through the educative power of critiques targeting current social arrangements. This process should eventually bring individuals to have a different idea about themselves, their wants, and their place in the world, and should eventually emancipate them. This work of criticism leaves the door open for other narratives and ideologies to provide a different set of meanings to individuals; yet, ideally, emancipated individuals should now be able to *choose by themselves* the lesser evil among all the paradigms of environmental protection proposed. Once liberated, the individual implicitly construed by this narrative is someone who, witnessing the lack of initiatives by institutional actors, takes it upon herself to contribute to environmental protection. If necessary, sometimes this individual is willing to go the extra mile and, from the safe space into which she retired and which she share with like-minded individuals who experience nature in a similar manner, will organize and plan the actions of protests against the given order. This individual is not only an activist but also a veritable partisan; she is the *maquis* hiding in the mountains of the Haut-Jura, secretly planning acts of resistance and occasionally going down the valley to blow up a bridge. Most of the time this is just a colorful analogy as protests take the form of peaceful marches, but from time to time also more violent actions have been carried out; the American Earth Liberation Front (ELF) - and the associations affiliated to it - are known for engaging in criminal and violent protests (eco-terrorism or ecotage) aiming at symbols of Western environmental degradation, or,

in any case, what are considered as such by them: SUV dealerships, or luxurious resorts in previously pristine areas.

CONTINUITIES

In this section, I show how each narrative builds upon other competing narratives in order to put forward its own distinct message. I have identified two layers of continuities. The first, deeper, continuity concerns all the three narratives and is centered on the role of scarcity and its significance within the different narratives. The second layer of continuities concerns the narratives of ecological modernization and civic environmentalism and is centered on the role of economic growth in providing the basis for environmentally sustainable preference satisfaction and fair wealth redistribution.

The scholars across the narrative divides offer different interpretations of the significance of the scientific notion that under a business as usual scenario there are limits to the supplies made available by the earth. Even more so in an age of population growth and economic expansion in developing countries. In other words, the Club of Rome *Limits to Growth* and its 5-years updates are widely read and taken into serious consideration by the majority of scholars working in environmental politics. This, in turn, implies that the notion of scarcity, far from being considered only the element upon which economic theory draws its very *raison d'être*, is also central to radical environmentalism.

Scarcity is framed by environmental economists working within the ecological modernization framework as a challenge to be met by always more refined allocations so that shrinking input resources end up in the hands of those that are able to create the greatest amount of output with them so that preferences continue to be satisfied. Looking at the normative presuppositions informing civic environmentalism, (moderate) scarcity is (i) a prerequisite of justice as no justice would be required in situations of abundance and no collaboration would be possible in situations of extreme indigence and, therefore, theories to sort out the distributions of the fruits of cooperation would not be needed in this case. (ii) It is a theoretical assumption which impedes liberal distributive theories of justice from turning into perfectionist theories of the good. A distributive theory which distinguishes legitimate demands for the appropriation of goods from illegitimate ones might, in certain cases, do away with the notion of scarcity in cases when there are enough resources to meet all legitimate demands. Finally, (iii) it provides the justification for a redistributive system which, within the limits of a politically agreed fair system of distribution, pursues economic growth through the efficient allocations of goods, along the lines of a difference principle. Radical environmentalist scholars, on the other hand, treat scarcity both as a fact and as a consequence of the policy solutions so far proposed by the environmental scholars who follow competing environmental narratives. Instead of treating preferences of individuals as given, they prefer to work directly on those preferences, trying to challenge and change them. In this sense, it is no accident that Dryzek, in his

book *The Politics of the Earth* (Dryzek, 2013), decides to present the radical voices - he calls them green radicalism - under the chapter heading "Changing People: Green Consciousness."

A similar understanding of the notion of scarcity brings both the scholars working within the strand of ecological modernization and those within that of civic environmentalism to agree that environmental protection can be achieved through market-based mechanisms which, concurrently, pursue economic growth. They differ only in the importance they attribute to the distributional imbalances created by such mechanisms. For the former, they are the price to pay for having truly effective policies which curb environmental degradation; for the latter, this price is sometimes too steep: corrective measures are needed. In other words, the model of political liberalism, on which the ideal of participatory environmental governance is modeled, does not eschew a market-based economy; it simply seeks to offer mechanisms for social justice as redistributive measures in the face of distributive distortions wrought by market mechanisms.

According to the scholars working within the ecological modernization narrative, human interventions upon nature often translate into a frenzied and short-sighted exploitation of natural resources which does not work towards bettering the human condition at the aggregate level. This happens when environmental projects and policies not only benefit some at the expenses of others - which within this framework is sometimes justified, or reluctantly accepted - but also undermine the long-term prospects for further improving the human condition. Economic growth can be unsustainable; however, the core message of ecological modernization scholars is that economic growth does not have to be unsustainable. In this context, the knowledge of economic theories and principles are what enables successfully bridging a demand for sustainability - partially endogenous to a growing capitalist system (Chapter 2; Hirsch, 1976; Inglehart, 1977) - with concrete sustainable policies and projects.

The economist's toolbox enables policy makers to convert green preferences into green policies, either by devising mechanisms which prevent markets from failing or by mimicking through the cost-benefit method the efficiency-producing capacity of the markets. In doing this, economists are facilitated by knowledge of and insights they claim to have into human psychology, or, in any case, into that part of human psychology which is most relevant to create a system of efficient exchanges through individual actions. In other words, it is not denied that men sometimes reciprocate gifts (*homo reciprocans*) or follow rules and play roles which not always is in their interest to follow or play (*homo sociologicus*), or that they are not able to actually choose rationally, even if they would like to, due to their bounded rationality. Yet, when it comes to obtaining goods within the market, it is claimed that the human psychology displays certain regularities, and that the construction of the *homo oeconomicus* is considered a good - albeit not perfect - description of these regularities. For example, cap-and-trade mechanisms aimed at cleaning the environment through a cap to selected polluting substances should work because the introduction of scarcity through the cap makes rational agents more willing to satisfy wants of higher priority. The cap changes

the incentive schemes of rational agents: those for whom reducing pollution is cheap will now do so and sell carbon credits to acquire goods which have a higher priority for them. This system is grounded upon a fundamental law of economics, that of diminishing marginal utility. The law of diminishing marginal utility, the idea that the utility of consuming a product progressively declines with the consumption of each additional unit of that product - the proof of which is mostly obtained through psychological introspection - is one of those instruments which economists can claim to have harnessed in order to bring economics to the service of social goals; in this case, environmental protection.

Pivotal to this understanding of environmental protection is the claim that economics is indeed a set of instruments which can successfully be employed to solve the social and environmental problems brought about by environmental degradation. In other words, the social reality and the ontology of economics (prices, preferences, individuals, firms, etc.) match. However, in order for green preferences to develop into green policies, a complex administrative machine needs to be constantly steered and navigated, markets in environmental products need to be introduced or facilitated; as a consequence, public officials, especially those charged with administrative roles, need to know the nuts and bolts of standard and environmental economics.

The distribution of environmental amenities and hazards following the employment of market-based mechanisms often enough deepens already existing imbalances of wealth along rich/poor lines. From the point of view of the libertarian presuppositions of ecological modernization, this is a perfectly legitimate outcome produced by talent and hard work, which often leaves a sediment of material wealth across many generations, and which is enabled by the fundamental individual freedom to accept or reject the terms of a commercial contract. From the point of view of the welfare economics presuppositions of ecological modernization, imbalances of wealth are sometimes an acceptable by-product of policies which pursue efficiency by aggregating individual preferences, which cannot aspire to the ideal of Pareto efficiency - large scale policies always produce winners and losers - and thus have to settle for what many would consider a morally lower degree of efficiency: Kaldor-Hicks efficiency. This standard of efficiency claims that an outcome is efficient if and only if those who are better off as a result of a redistribution of resources could in principle compensate the worse off, such that they could at least restore their welfare to their pre-redistribution levels. Direct compensation of the losers almost never happens, but it is usually argued that the role of compensating those who have been negatively affected by redistributive policies should be left to the fiscal system.

Yet, even if one accepts this rejoinder, and accepts that the definitions of efficiency employed within welfare economics manage to steer clear from distributive issues, distributive issues cannot be easily swept under the carpet altogether. Presuppositions about how we collect preferences, aggregate them, add or subtract them, and more fundamentally still, whether economic preferences are a good metrics to evaluate wellbeing, all have distributive repercussions at the societal level which often worsen or reinforce wealth imbalances. It is, for example, well-known that economic

preferences inferred from market behavior, as well as contingent evaluation surveys establishing willingness to pay and accept for environmental goods and bads - upon which policy decisions are then taken -, are often biased by *ability to pay*. Often such differences are not smoothed out, even after the researcher has controlled the results for income. Smoothing out such systemic differences requires the researcher to control for level of education, political system, pervasiveness of the rule of law, and more or less everything one could find morally suspicious to discriminate on. Yet, the more the researcher controls for variables the causal relevance of which is considered morally arbitrary, the more the space for market-based mechanisms to operate shrinks. From an economic perspective, it makes sense for different areas of economic development to have different perceptions of environmental goods and bads - without questioning whether these perceptions come from arbitrary facts of life -, such that trading between different economic zones could occur. If this is the case, then the different perceptions about the environment, albeit generated by morally arbitrary social elements, are an accident on the road which will take everyone, some sooner than others, to greater levels of well-being. The history of the international climate regime, for example, is punctuated by controversies regarding seemingly distributively-neutral and uncontroversial technical issues having important distributive repercussions (e.g. the value of a statistical life, the discount rate in mitigation policy). Even the choice of not dealing with distributive issues is at bottom a distributive one.

The employment of market mechanisms is premised on a fundamental anthropocentric idea which is central to the ecological modernization narrative, but which is also shared by the scholars working within civic environmentalism: that environmental protection should not make things worse for us, human beings. Ecological modernization scholars cash out this anthropocentrism in terms of policies which, while pursuing environmental protection, manage to enlarge the economic pie. While not wholeheartedly sharing the normative presuppositions behind the employment of market-based mechanisms (i.e. welfare economics and libertarianism), civic environmentalism scholars, too, allow environmental protection to be pursued by means of market-based mechanisms. For example, a proponent of civic environmentalism such as Dryzek - although he would not probably categorize himself as such -, claims that one of the fundamental features of our response to the current environmental challenge is that it "should not overlook the dominant political fact of our time", i.e. the pervasiveness of market capitalism (Dryzek, 2013: 233). However, what differentiates the two narratives - ecological modernization and civic environmentalism - is how the anthropocentric idea is cashed out: civic environmentalism scholars attach a different understanding to what "not making things worse for us, the human beings" means. In other words, in addition to economic efficiency, they attach a much more egalitarian reading to the requirements that an environmental policy should meet in order to qualify as viable. Mechanisms of public participation - which are at the heart of the narrative of civic environmentalism - do sometimes offer some corrective measure to redress these distributional imbalances and implicitly provide stricter equity requirements for environmental policies. Needless to

say, when more people are allowed to vote on a certain issue, most of the time this actually means opening the franchising to "more previously marginalized people." In particular, as distributive policies will reflect the expectations of the new median participant, the more that poorer or previously marginalized people participate in politics, the more the policies yielded by this democratic process will be redistributive. Furthermore, when participation is intended as actual presence at the decision-making table, then not only some measure of output redistribution is likely, as when more people are allowed to vote, but also some form of input redistribution needs to be implemented. In other words, if a particular institution wants to extend the pool of people partaking of political deliberations, then it also needs to invest in education and capacity building beforehand.

While, on the one hand, assuming scarcity at the outset of their normative presuppositions brings ecological modernization and civic environmentalism scholars down the path of pursuing environmental protection in a manner which is consistent with continued economic growth and, thus, of employing market-based mechanisms, on the other, framing scarcity as a real consequence of capitalistic accumulation and neoliberal dispossession brings radical environmentalist scholars to critique market-based environmental protection.

According to radical environmentalists, economic growth - and the commodification of nature it necessarily entails - is the true culprit of environmental degradation. Radical environmentalism scholars criticize environmental economists by arguing that the conceptual categories normally used to refer to nature do not track the categories actually existing in nature, and that, in any case, human beings have no way of knowing this for sure. Devising environmental policies on the basis of such categories - trees, lakes, tons of CO_2 - can only ever be a tentative endeavor: positive results will depend more on brute luck than on an actual knowledge of nature. A similar position is taken by the eco-socialists who claim that access to natural resources should be dictated by the natural metabolism of the earth, its cycles of renewable energy production and sink absorption, not by the drive for capital accumulation.

By taking scarcity for granted, instead of carefully working out what makes natural resources scarce, ecological modernization and civic environmentalism scholars can be accused - from a radical environmentalism perspective - of grounding their policy proposals upon scientific research which is built on what is technically known as "problem closure." Problem closure is the pre-construction of the scope of the inquiry. By remaining rooted in an anthropocentric perspective, these scholars produce knowledge for "technical cognitive interest," which is the most fundamental type of problem closure in contemporary scientific research, according to Habermas (1974). By doing so, they most of the time accept the given definitions of specific environmental problems, e.g. that deforestation is an environmental problem having an impact on climate change rather than a social problem by which local communities see their resources diminishing. The debate I have presented in Chapter 4, between an understanding of the deforestation problem as caused by free rider behavior in open access settings - inspired by Hardin (1968) -, and that privileged by political ecologist

who stress the impact of globalization and powerful actors on local communities, can be identified as a typical case of conflicting problem closures.

Another typical case of conflicting problem closure is the pre-definition of what an environmental problem ultimately is: those who favor the price mechanism and market instruments to provide solutions often implicitly subscribe to an understanding of environmental problems in terms of resource exhaustion. And they can, therefore, claim that an environmental problem does not exist - or it is easily resolvable - because the price mechanism will provide substitutes to scarce resources. On the other hand, those who favor policies such as the restoration of degraded ecosystems are more likely to frame environmental problems in terms of the diminishing quality of the environment. The two are not the same. Nowadays we live in a world which has much more resources, because of our extracting technologies, yet, according to numerous indicators, the environment is in a worse state than it used to be. Needless to say, problem closure has an impact on policy-making down the line; in the case of the example provided in Chapter 4, this resulted in policies of privatization of open access areas (Vreeland *et al*., 2001).

The way of presenting the continuities among the narratives employed so far, as a progressive refinement (i) of the notion of scarcity - shared across the narrative divides - and, within the debate between ecological modernization and civic environmentalism, (ii) of the notion of economic growth (how and within which limits it should be pursued), gives the wrong impression that ecological modernization is not a response to the other environmental narratives but only to an internal demand for sustainability and to an internal rejection of business-as-usual models of economic development. By reversing the order in which I have so far presented the continuities among the different environmental narratives, in the remaining of this section I will analyze other important continuities which have so far remained under my analytical radar.

Radical environmentalists who expose the faulty assumptions of competing positions are usually viewed as a healthy counterweight in environmental debates; however, once they make the move from being a critical force to becoming a constructive one, few would be willing to follow their proposals all the way to their final theoretical consequences. In particular, by starting from the non-anthropocentric stance at the heart of some radical environmentalist positions, and by taking it seriously, one would be compelled to acknowledge that sometimes radicals, when faced with serious dilemmas pitting the enduring enjoyment of what we take to be fundamental against the protection of the environment, drift away to positions that many would define as deeply misanthropic: the restriction of dietary choices and reproductive rights and the limitation of free movement are some of the striking examples that come to mind. By rejecting these conclusions, many would argue that environmental protection needs to be in line with the enjoyment of our liberties, not the other way around.

From there to arguing that our political institutions should merely provide the conditions for the individuals to pursue what it is valuable to them, is but a short step. And as in contemporary societies the satisfaction of disparate needs and desires depends on some monetary exchange, it follows that enlarging the economic pie is the best way

to satisfy people's demands. If this is the goal, then governments should create the conditions for markets to work freely and efficiently. It is not in principle denied that what is valuable to people might also entail the protection of the environment. But as determining market prices is a fundamentally democratic process which no one individual can singularly affect - unless the market is rigged by monopolies, asymmetric information, high transaction costs, etc., which admittedly is not unusual - environmental protection will be an efficient business model only when more and more people come to appreciate it and produce a demand for it. The sustainability of this model depends on the fact that economic growth allegedly produces its own demand for green products and lifestyles, and on the capability of farsighted administrators to anticipate the future needs and demands of individuals, as well as the needs and demands of future individuals, and thus craft legislation which is both market-friendly and goes in the direction of greater sustainability. This is how the position of ecological modernization scholars can be considered a response to radical environmentalism: on the one hand, it takes seriously the demand for environmental protection, on the other, it aims to improve on those aspects which are felt most in need of improvement. The promise of economic growth enables individuals to do away with the limitations of personal freedoms sometimes required by the normative theories proposed by radical environmentalists.

Within this second argumentative line, it is also possible to argue that the implicit democracy of market prices is more than enough to understand what people's preferences are and what they want; more political participation and redistribution would in certain situations stifle economic growth, as valuable resources would get into the hands of those who do not know what to do with them. Furthermore, as talented people will not see their effort rewarded due to redistributive measures, they will lack motivation and economic incentives to continue innovating and growing their business, perhaps their green business, into the future. The usual metaphor in these cases is to picture redistributive policies as the act of moving water from one place to another by means of leaking buckets. Is it really worth it if a half or even just a quarter of the initial available water is lost along the way? If our intuition and our reasoning bring us to say that no, it is not worth it, then we can successfully claim that the model of environmental protection espoused by ecological modernization scholars indeed represents a better solution to environmental degradation compared to the redistributive model of civic environmentalism.

BLIND SPOTS

We have seen, across the different narratives, that there are aspects which clearly distinguish them and we have analyzed these "clashes" in terms of four different categories: (i) the nature of relevant information, (ii) the role of individuals, (iii) the locus of decision-making, and, finally, (iv) the model of governance. We have also seen that across all the narratives there are some important continuities and, in particular, we

have seen that the three narratives depart from a fundamental notion of environmental scarcity which, however, is interpreted in different ways.

Some of those differences come from deeply ingrained cultural differences, such as those, for example, between ecological modernization and radical environmentalism; others are mainly due to different sensitivities when it comes to issues of allocation or distribution, such as those between ecological modernization and civic environmentalism. Differences in sensitivities are not to be underestimated in any way - and the fact that Western politics in the last half century can be read along the coordinates of efficiency vs. justice (Okun, 1975) attests to how deep these differences in sensitivities can run -, yet they do not go further in questioning the cultural presuppositions governing our understanding of the environment.

Given what I called the common playing field in which these narratives meet, and given the continuities among the narratives, how come these differences and clashes emerge? In other words, what drives these narratives apart? The work done in the previous chapters offers a clue and some initial responses to this question. One has to look at the normative presuppositions informing the narratives to understand why these clashes emerge. And yet this is not enough: the role of narratives is not simply to dress up in a story an underlying normative theory but, most importantly, to frame the intrinsic complexity of environmental policy and make it intelligible, hence actionable, to policy-makers and individual people alike. In other words, the recipes offered by the various narratives - market-based mechanisms, public participation, reversing the process of commodification and pursuing degrowth - cannot simply alienate a part of the population by offering solutions that appeal to only the subset of this population who already share some fundamental convictions about what is and what is not appropriate in politics. An important role played by environmental narratives is thus to translate the normative concerns linked to the normative presupposition of a competing environmental narrative into the normative currency of the chosen narrative. Clashes then emerge because it is not possible to translate all these normative concerns into an alternative normative currency. This impossibility creates areas that remain in the shadow, and which I have called "normative blind spots." To these I turn now.

Ecological modernization

Georg Wilhelm Friedrich Hegel famously wrote that philosophy is necessarily a system because it begins with a simple thought and then develops and follows the development of this thought into other thoughts, thus forming categories, and from then to an all-encompassing system.

"Philosophy is a system. [...] The real meaning of 'system' is totality, and only as such is a system true, a totality beginning from what is simplest and becoming ever more concrete as it develops" (Hegel, quoted in Lauer, 1983: 82).

If there is a discipline that today most deserves the label of "system," it must certainly be welfare economics. Even if one is profoundly critical of the direction taken by welfare economics in the last half century, which has no doubt enabled and facilitated the advancement of the commodification frontier to domains not previously touched by the logic of the market, one cannot remain indifferent to the mammoth literature which has been generated by departing from few, well-defined, and simple principles. In many ways, mainstream welfare economics is one of the most remarkable achievements of modernity.

As we have seen, welfare economics is the main normative point of reference for all those scholars and practitioners who believe, in line with the ecological modernization narrative, that environmental protection has to pass through the employment of market mechanisms. This is usually achieved either by introducing markets or by mimicking the capacity of markets to produce efficiency - this is done by implementing policies which have previously passed the cost-benefit test. In Chapter 2 I briefly mentioned some of the basic principles and normative underpinnings of welfare economics, while reviewing the contested normative presuppositions of cost-benefit analysis. These were: social welfare is the algebraic sum of individual welfare; well-being is nothing but preference satisfaction; preferences can be priced through the observation of how individuals behave in the market or through surveys; and there is a linear relation between the probability of death and the value of risk avoidance. Although all of these points can be separately criticized from the point of view of alternative normative presuppositions, there is one normative principle which is more foundational than the others, which deserves more careful consideration, and which explains how normative economics has come to be employed in so many different fields, environmental protection included.

Welfare economics identifies well-being with the satisfaction of preferences; at face value, there seems to be nothing controversial about this: it simply states that well-being depends on how much the desires of a person are frustrated or satisfied. Theorists of welfare economics arrive at this principle by means of a theory of rationality plus two fundamental assumptions. First some words about the theory of rationality: the preferences of an individual are rational if they are transitive and complete. Preferences are transitive if, given three different objects a, b, and c, a is preferred to b and b is preferred to c. Then, according to the requirement of transitivity, a is necessarily preferred to c. Preferences are complete when all pairs of alternatives can be compared with each other, in other words, given two alternative objects, a person can prefer one over the other, or the opposite or be indifferent between the two. Second, the two additional assumptions are that individuals are self-interested and that they have perfect knowledge.

According to the assumption of self-interestedness, if nothing but self-interest affects a person's preferences, then this person prefers one particular object over another if and only if she believes that this object is strictly better for her compared to the other one. In other words, rational and self-interested individuals always have a preference for *what they think* is better for themselves over what they think is worse. According to the

assumption of perfect knowledge, self-interested individuals with perfect knowledge prefer one object over another, if and only if this object is, *in fact,* better for them. From rationality plus the two assumptions of self-interestedness and perfect knowledge, it follows that one can tell how well-off an individual is simply by looking at how well satisfied her preferences are; nothing else is needed. Hence, for normative economics, well-being and the satisfaction of preferences become the two sides of the same coin. Everyday practice in normative economics, which allows economists to choose among different policies and advice governments, begins when this simple equation between well-being and preference satisfaction is coupled with a moral principle of minimal benevolence. This principle is so innocuous to be considered almost a tautology, i.e. other things being equal, it is a morally good thing if people are better off. If this is so, and if people are better off when their preferences are satisfied, it follows that, other things being equal, policies aimed at increasing the size of the pool of satisfied preferences are justified. The use of markets, market-based mechanisms, and government interventions aimed at bringing efficiency are independently justified by reference to their capacity of producing (Pareto) efficient outcomes (first and second theorems of welfare economics).

But what are these "things" that should "stay equal" for the satisfaction of preferences, hence for the corresponding increase in well-being, to be a good thing? What welfare economists say is that, under certain conditions, it is a morally good thing to increase the well-being of people by satisfying their preferences or by creating the conditions such that they can satisfy their preferences. This statement implies that under certain *other* conditions, while the satisfaction of preferences might still increase the well-being of certain people, it might not actually be a morally good thing to do.

Some readers might wonder "how can something satisfy preferences and not be a good thing?" (If you are among them, you might discover that your mindset is more neoliberal than you think!). If anything - the surprised reader might rejoin -, a wedge should be inserted between well-being and preference satisfaction; in other words, not anything that satisfies preferences increases well-being, but those actions that do satisfy preferences *and also* increase well-being, should automatically be morally good. I have already surveyed this popular counter-argument to microeconomics in Chapter 2: breaking up the identity between satisfaction of preferences and well-being means pointing to the fact that some of our everyday actions - like smoking, eating too salty food, and marrying the wrong person - satisfy our preferences but do not increase our well-being.

This argument has some empirical merits, but its theoretical grip on economic theory is firmly dismissed by the assumption of perfect information. For economic theory, the person who - to an external observer - indulges a bit too much in wine drinking is not some weak-willed character, but rather someone who has rationally weighed up the costs of purchasing wine, the health cost of heavy drinking, and many other things against the pleasure of lightheadedness just before being hit by the one-glass-too-many feeling and the pleasure of tasting different wines, which might be both physical and intellectual. In this respect, the heavy-wine-drinker of economic theory is

more similar to the financial analyst in charge of deciding whether or not to grant a loan than to the failing moral characters of *The Sun Also Rises*. In other words, the assumption of perfect information rules out the possibility of an external point of view from which to judge certain actions as truly conducive to well-being and creates a relationship of strict necessity between preference satisfaction and well-being. The results are sometimes truly surprising, yet perfectly sound within the economic framework of rationality plus the assumptions of perfect information and self-interestedness: drug addiction thus becomes rational drug addiction; addiction is, in fact, a pattern of consumption which maximizes the discounted utility of the addict (Becker and Murphy, 1988).

After this digression on the identity between the satisfaction of preferences and well-being, we can now go back to the original problem: under what conditions, precisely, is the increase of well-being not a good thing? The idea here is that there are moral dimensions other than well-being, and in this plural normative space, well-being is one normative metric among many others. Let me clarify this with an example: imagine there is a society with two individuals, A and B. A's and B's well-being can be represented with natural numbers: A has 5 and B has 7. Following a distribution of resources, the map of well-being distribution in this society now turns into the following: A has 6 and B has 22. In this new society, there has been an increase of well-being, both at the individual and aggregate levels. It is also very noticeable that the inequality of the society has increased. Incidentally, let me also remark that this new distribution would be justifiable both along welfare economics lines and along egalitarian prioritarianism ones - à la Rawls - as the new distribution improves the lot of the worst-off. This new distribution would not be justifiable along strictly egalitarian lines as the distance between the two individuals in terms of well-being has increased. Imagine now also a third society in which A has 6 and B 8, but, following this new distribution of resources, a significant degradation of the environment has also occurred. It is easy to see how the two new distributions - in the second and third societies - might be criticized from a normative point of view external to welfare economics: the second society creates a spike in welfare inequality, the third creates environmental degradation. Inequality and environmental degradation are thus, in the examples provided, the "things" which have not "stayed equal," and which could stop a decision-maker from implementing a policy which would increase well-being. In these cases, increasing well-being might not be a morally good thing to do.

Every student of economics is told, when these situations occur, that Pareto improvements are to be clearly separated from issues of justice. Economic theory merely provides decision-makers with reports giving guidance on how to increase the size of the economic pie; whether it is worth moving to the distribution which increases the pie and well-being is a political decision. What happens after the economists hand in the reports is not their business anymore. However, this simple mantra - "efficiency is not justice" - is easily forgotten when the students continue and take more advanced economic classes, and even more so when they leave the university: there efficiency -

gains in terms of preference satisfaction - and justice - other moral dimensions alternative to well-being - become increasingly intertwined.

Here is how the reasoning goes: the two above-mentioned societies - the one which creates inequality and the one which creates environmental degradation - would not represent any improved state of affairs compared to the first society *if the individuals of those societies really cared about inequality or environmental degradation*. If inequality itself imposes costs upon certain individuals low in the social-economic ladder - i.e. certain individuals care about inequality and how resources are distributed - then we would see that in the second society of the example, *once everything has been considered*, the new distribution would actually be something like A has 4 and B has 22. The same argument can be made with the case of environmental degradation: if environmental degradation imposes costs upon individuals - i.e. individuals care about the environment - then we would see that in the third society of the example, again *once everything has been considered*, the new distribution would not actually represent any improvement, or could even entail a loss of well-being.

It is worth spending some time on these special clauses, "once everything has been considered," or "if the individuals really cared about x," because they represent the point at which welfare economics, as it has been taught in university first-year courses, and welfare economics as it is now practiced in a wide array of economic side disciplines - such as environmental economics -, actually go different ways. There has been a constant movement of erosion of alternative normative dimensions from within welfare economics by subsuming every possible concern - material, intellectual, and moral - into individual preferences the satisfaction of which is necessary for well-being to improve. In other words, well-being, from being one among many normative dimensions, moves to center stage by *internalizing* alternative normative dimensions. This erosion of alternatives is what seemingly prohibits inserting a wedge between a choice which satisfies preferences and the moral goodness of this choice: if every possible normative concern - equality, freedom, environmental protection - is already internalized into preferences, then everything which increases preferences is also *ipso facto* morally good. Once every possible moral dimension is successfully internalized into preference satisfaction and well-being, then the principle of minimal benevolence can do all the work: more is better than less, nothing else is needed, no "ceteris paribus" clause is required anymore.

It is also possible to pinpoint the historical origins of this movement of erosion, which, at least initially, roughly overlaps with the work of Gary Becker. He later became a Nobel laureate for having initiated this work of erosion/absorption of other disciplines by bringing them into the realm of welfare economics; or, in the precise words of the Nobel commission, "for having extended the domain of microeconomic analysis to a wide range of human behaviour and interaction, including non-market behaviour."[2] As much as Becker's extensive scholarship, also his own words, when

[2] For the press release announcing the winner of the prize and the motivation see: http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1992/press.html (last accessed May 2017).

receiving the coveted prize, give a real indication of the fundamental insight which has driven his research along the years. According to Becker, "individuals maximize welfare *as they conceive it*, whether they be selfish, altruistic, loyal, spiteful, or masochistic." In other words, he claims that preference satisfaction encompasses domains previously confined to moral talk only, such as those of loyalty or altruism referred to in his quote.

Becker opened the gates: research into the social sciences through the methods of economics has grown ever since to the point that the political scientists Donald Green and Ian Shapiro, in a book titled *Pathologies of Rational Choice,* complain about the extent to which Rational Choice Theory is being unreflectively used in political science to explain disparate social phenomena: how social mobilization occurs, how authoritarian regimes hold on to power, how racial segregation is created in urban settings, etc. (Green and Shapiro, 1994). In their book, Green and Shapiro introduce a felicitous distinction between method-driven research and problem-driven research to explain when pathologies in the use of Rational Choice Theory are likely to develop. Method-driven research occurs when a social phenomenon is chosen and presented in a particular way in order to justify a particular theory instead of characterizing more adequately a problem whose importance is not dependent on the theory. Problem-driven research, on the other hand, starts with the problem and asks why a social phenomenon is the way it is. This approach requires the researcher to look at the previous attempts to account for the social phenomenon, weigh their strengths and weaknesses, and then evaluate whether a different method could improve our understanding of the phenomenon. One of the consequences of the surge in method-driven research, as per the method of Rational Choice Theory, is to have increased the pool of actions, behaviors, or simple attitudes which can be read through the lens of market relations. Individuals are now interpreted as reacting to incentives, collaborating with others to improve their expected pay-offs, free-riding on collective efforts, etc. even when it never occurred to these individuals to act and think by reference to payoffs and costs in the first place.

Since the publication of Green and Shapiro back in 1994, the pendulum has swung so far away from problem-driven research that method-driven research has even made it into popular culture. I am here referring to the fortunate Freakonomics series of books, podcasts, newspaper articles, and even a movie, by Steven Levitt and Stephen Dubner.[3]

Becker led the way by showing how every possible individual aspiration could be shoehorned into a preference in need of being maximized, and a generation of scholars in the social sciences followed him by looking for phenomena which could, in principle, be adapted to the methods of microeconomic theory. If everything can be seen as maximizing or frustrating some preferences, decision-makers, to act correctly, only need to count properly. In order to see if the decision to convert a forested area into an

[3] For an overview of the material produced under the label "Freakonomics" see: http://freakonomics.com/ (last accessed May 2017).

amusement park is justified, the decision-maker needs, first, to identify all the people affected by that decision - no small endeavor considering that policies often affect not-yet-born people, and those living outside the borders of the political decision - and, second, she has to make sure that all the preferences of the affected people are counted properly. Surveys and market observations are all instrumental to this difficult counting exercise. If something falls beyond this calculus, then it is not possible to act correctly, or in any case, it is less likely that the outcome will actually improve people's well-being. Bad outcomes then happen when something which is supposed to be inside the calculus remains outside; usually, it is a failure to include some of the preferences of the affected individuals or a failure to identify all the affected individuals.

This is why we usually associate the verb "to internalize" to something positive, and in many ways within this normative framework it is indeed positive: "a polluting firm is being forced to internalize the environmental costs of its operations" means that the polluting firm can no longer pollute the environment and remain unaccountable for such actions. By "internalizing," a pollution firm has to pay taxes and fines, compensate the losers, buy emission credits from someone, or spend money in costly greener production technologies. It also means that before "internalizing" there was a group of individuals who cared about the environment, that the pollution activities of the firm were frustrating some of their preferences, and hence impacting their well-being negatively without there being consideration of their condition. By internalizing, the polluting firm itself - when the internal public relations department is well aware of the financial losses of bad publicity -, or the authorities who impose upon polluting firms corrective measures, recognize that, when individuals really care about the environment, the distribution of resources produced by polluting the environment not only fails to increase the well-being of the affected people but is also morally bad.

I do not want to dismiss this method-driven scholarship lock, stock, and barrel, which in many ways brought a new perspective to bear on old problems and has, if anything, considerable heuristic value. However, it is instrumental to my argument to show how the erosion of previously autonomous normative domains and their inclusion, or internalization, into welfare economics has progressively and significantly rendered more shallow the political space in which conflicts among different normative positions have a legitimate place. The narrative ecological modernization translates every normative concern into preferences that should be maximized in the most cost-efficient way, premised on the assumption that this is the most "natural" way of deciding on competing policy issues. This is a blind spot because the normative concerns which are clearly considered from within a certain competing narrative are sidelined within the ecological modernization framework.

Once alternative normative concerns have been successfully internalized into yet another set of preferences to be satisfied, they lose their original normative force, they become the empty shells of what they once were. This is because these internalized concerns lose the force that comes from having an independent source of normativity. Big development projects such as infrastructure building of roads and dams always impact heavily on the lives of local populations. In an increasing effort to ensure that

such impacts are minimized as much as possible, institutional donors require project managers to provide additional safeguards concerning the extent to which social and environmental costs have been taken into consideration - i.e. internalized - and properly addressed in the design of the development project. For dam projects, for example, environmental costs include biodiversity loss both up- and downstream the dam, changes of chemical and physical properties of the rivers affected, and alteration of the landscapes. Social costs include the creation of the figure of the dam refugee, i.e. people displaced as a consequence of the construction of the dam or its effects once in operation. As these "costs" might suggest, the construction of big dams can be normatively contested both on environmental grounds and on grounds that it affects negatively the lives of peasant populations. By internalizing these concerns into the design of the projects, project managers guarantee that some compensation goes to displaced populations and that environmental mitigation, such as environmental flow releases to sustain downstream ecosystems, are put in place. Environmental compensation is also a possibility, i.e. the creation of a national park or the rehabilitation of previously disturbed land elsewhere to compensate for the loss of biodiversity in the dam area. However, by internalizing these concerns, hence once everything has been taken into consideration, and once sufficient consideration to what the people really care about has been paid, the policy outcome, were the project to go through nonetheless, becomes unimpeachable. Indeed, only two possible problematic outcomes could follow from the implementation of a project whose approval was conditioned upon the internalization of social and environmental costs: (i) there are negative social and/or environmental impacts which are not properly accounted for; (ii) there are negative social and/or environmental impacts which are already accounted for. Outcome (i) points to a mere technical problem, something that remained outside the cost-benefit calculation and that should be included. This outcome commands a solution which remains internal to the normative framework of preference satisfaction. Outcome (ii) points instead to an apparent problem: once everything has been properly counted, the remaining social and environmental impacts, such as a spike in income inequality or environmental degradation, are nothing but empty observations lacking normative bite. Once internalized, inequality is not inequitable anymore, nor is environmental degradation.

Analogously to libertarians, who do not find inequality to be a normative concern if vindicated by the three principles of justice in acquisition, exchange, and rectification, many environmental economists do not find inequality or environmental degradation morally concerning if previously accounted for and properly internalized in cost-benefit calculations. However, whereas Nozick developed a theory of justice in response to other accounts - most notably Rawls' -, and presented his theory as fundamentally other than these accounts, hoping to initiate a fruitful debate among theories with different normative foundations, welfare economists have largely abandoned, since the 1960's, their commitment to being one voice among many.

This is the fundamental blind spot created by the welfare economics presuppositions of the narrative of ecological modernization: in inspiring development

and environmental policies, scholars working within the ecological modernization framework sometimes create negative social and environmental impacts, while implicitly justifying these outcomes as being already "accounted for"; furthermore, this deprives the public space of confrontations among positions normatively independent from each other.[4] On the other side, however, this normative blind spot also contributes to the undeniable strength of the narrative of ecological modernization: as every possible normative concern is placed on the same scale, policy-makers and their advisors have an easy instrument to weigh competing and previously incommensurable values and to deliberate among different environmental policies.

Civic environmentalism

It is one thing to say that some inequality and environmental degradation might not be morally concerning because social and environmental costs have been internalized, quite another to experience those policy outcomes first-hand and be told that - as social and environmental costs have already been properly internalized - such experiences are only the ineliminable background noise of an otherwise perfect recording. That would not even be too bad if the dynamics of markets always guaranteed a fair alternation between winners and losers, such that inequalities in wealth and access to environmental amenities were in the not-so-long-run equally distributed across a wide spectrum of people. However, the track record of markets and market-based mechanisms in delivering equitable environmental protection is tainted by the fact that specific features of welfare economics systemically tilt the provision of environmental goods in favor of the already better off. A common response to this state of affairs has been to open decision-making institutions to the participation of previously marginalized people with the hope that the new participants are able to affect the distribution of resources created by market mechanisms. Since the late '80s, this movement toward greater participation has been extended to the institutions in charge of environmental policies.

A basic idea of procedural justice stands behind the promise that participation - especially when understood in its stronger sense of participation as presence at the decision-making table - is capable of producing convergence between the particular perceived interests of different people and the real interests of that community of people which might seek a more equitable distribution of resources. That is, the assumption that a properly devised procedure could lead to a just outcome. In *A Theory of Justice* (1971), Rawls introduced three different notions of procedural justice: perfect, imperfect, and pure. Perfect procedural justice occurs when there is an independent criterion to establish what is right and just, and there is a procedure which guarantees

[4] An excellent reconstruction of the value conflicts involved in the decision-making process which leads to building a dam and of how institutionalized procedures which evaluate the environmental impacts of large projects (such as the Environmental Impact Assessment) constrain and undermine the playing out of open deliberations informed by conflicting values is provided by Costa *et al*. (2016).

that just results will be achieved. Rawls' famous example is that of distributive fairness in cutting a cake: provided that the goal is to allocate an equal amount of cake to everyone, the procedure which guarantees this outcome is that the person in charge of cutting the cake will be the last one to pick a slice of it. Assuming that everyone wants as much cake as possible, including the cake-cutter herself, the cake-cutter will be compelled to divide the cake into equal parts. Imperfect procedural justice occurs when there is an independent criterion to establish what is right and just but there is no procedure which guarantees that the just outcome will be achieved. Rawls' example is that of a criminal trial: "even though the law is carefully followed, and the proceeding fairly and properly conducted, it may reach the wrong outcome. An innocent man may be found guilty, a guilty man may be set free" (Rawls 1971: 86). When an independent criterion to establish what is right and fair does not exist, then, in certain instances, a procedure could be invoked to establish what is right; and this outcome will be achieved, provided that the procedure has been properly followed. This is an instance of pure procedural justice; Rawls' example is that of gambling. Provided that every player has entered the game uncoerced, committed her own money and not stolen from anyone, and possibly many other requirements, then, whatever the outcome of the gambling, it will be just.

The recognition of one's needs and some redistribution of resources to meet those needs are felt by many participants to be the *conditio sine qua non* for their involvement in political decision-making; i.e. what they are there for. For example, major groups of the UN - the institution of which has issued a first strong signal in the movement towards more participation in the '90s - ask for more resources to be channeled to youths, farmers, etc.; they ask for policies more favorable to their constituencies. Using Rawls's terminology, redistribution is the independent criterion which the various participatory procedure are designed to achieve. However, what I have called the "general loss of authority of the established sciences" (section on Clashes - civic environmentalism, above), together with the end-of-history arguments about enhanced participation, not only had been the rationale for the uptake of a narrative of participation in environmental politics, but it also *de facto* progressively eroded whatever external and independent criterion existed in order to evaluate what the ultimate goal of this movement of participation should be. The more the importance of participation has been stressed, the more its role expanded. In other words, the buzz around public participation and the concomitant creation of a narrative contributed to redefining the very role of participation: initially, public participation took the form of legitimacy-enhancing consultations on specific agenda items aimed at more resource or wealth redistribution. Once the narrative moved to center stage, the limited set of issues about which the public could be consulted increasingly felt as an unprincipled limitation of the scope of participatory politics. The result is that, in environmental politics, it is increasingly the third understanding of procedural justice - pure procedural justice - which seems to subtend a number of practices which receive the label of "participatory." It is participation itself, operationalized as the satisfaction of a number

of disparate requirements - the following of a procedure -, which guarantees the moral acceptability of resulting policies, whatever they might end up being.

A digression on a specific case of a participatory procedure: FPIC

This movement from procedures with a built-in guiding criterion - in Rawls' terminology, both perfect and imperfect procedural justice - towards pure procedural justice is for example quite evident in forestry politics, and more specifically in those forestry policies and projects in which the requirement of public participation has been satisfied through the Free Prior Informed Consent procedure.

While the uptake of government-backed REDD projects has been slow,[5] REDD projects among private entities have been numerous in the last decade. Before UNFCCC officially arrived at a blueprint to operationalize the mandate that the management of forest resources be participatory - which happened with the agreement on the REDD+ Safeguards at UNFCCC's COP 16 in Cancún - REDD projects among private actors which involved areas inhabited by indigenous people were nonetheless being regulated by the UN Declaration on the Rights of Indigenous Peoples (UN General Assembly, 2007). In this document, the most important instrument aimed at guaranteeing that decision-making in the management of natural resources is participatory is the requirement of Free and Prior Informed Consent (FPIC). In any case, REDD+ Safeguards remain for the time being quite vague, and individual countries are given a significant margin of appreciation in interpreting the different Safeguards. For example, concerning the issue of participation, REDD+ Safeguards specify that it has to be "full and effective," without further detailing what makes participation full and effective. It is likely that individual countries will interpret the requirement of "full and effective participation" in a path-dependent way by continuing to resort to the FPIC principle enshrined in the Declaration on the Rights of Indigenous Peoples. According to the United Nations Permanent Forum on Indigenous Peoples (UNFPII, 2011), FPIC represents the absence of coercion, intimidation or manipulation (free) in situations where indigenous peoples might be affected by a development and resource intervention. It also entails early consent with adequate time for local decision-making (prior) and access to sufficient, appropriate information for a considered choice and its likely impacts (informed). Finally, indigenous peoples also have the right to consent or withhold consent.

Looking at the last decade of forestry politics, the FPIC procedure can be considered a veritable battleground for competing ideas of public participation, which in turn subtend competing ideas of procedural justice. According to the reconstruction of Mahanty and McDermott (2013), FPIC was designed to tilt the balance of power in the management of natural resources towards local and indigenous populations. Power and

[5] Since it was first put forward in 2006 it had stalled multiple times due to the legitimate concerns over the double counting of carbon savings (so-called additionality and leakage issues) and over the impacts on the local population.

wealth redistribution had been the guiding criterion in the design of the procedure. Indeed, the practice of obtaining FPIC was promoted by a coalition of non-governmental actors led by the World Wildlife Fund (WWF), which was increasingly frustrated with the impact of the extractive timber industry on local populations and with the slow response of inter-governmental negotiations to address the problem. This environmental NGOs coalition thus launched the Forest Stewardship Council (FSC). The FSC is an international certification organization and a form of market-driven governance: it sets environmental standards and ensures that the forestry industry employs socially responsible practices. These standards, through a system of green-labeling, then incentivize socially and environmentally sustainable forest practices. A number of organizations which comprise the coalition led by the WWF were more interested in issues of indigenous recognition - their livelihood and access to resources - than in forest loss, and, as a consequence, they fought so that FSC would also place significant emphasis on the participation of indigenous and local people. This internal trend was also welcomed due to the perceived convergence between indigenous and conservation interests (Elliot 2000: 91). Even before the formal launch of FSC in 1993, indigenous organizations were consulted on the content of the FSC standards, and they became full members of the certification system. The standards that emerged from these early consultations are known as the Ten Principles and Criteria (FSC, 2015). Principle 3 deals specifically with indigenous rights and required "free and informed consent" on all matters involving indigenous legal and customary rights.

FPIC is grounded of the Western notion of property rights (Mahanty and McDermott, 2013). Property rights specify that people who have a legal title to a certain property cannot be dispossessed of it without their consent. The fact that the main mechanism for indigenous people's participation is grounded on the notion of property rights is not a fortuitous accident, but rather a well-thought out political move. It is informed by the desire of indigenous groups to affirm rights to their lands, while at the same time strengthening them vis-à-vis public opinion and international organizations. As we have seen in Chapter 4, property rights are the door to commodification; once introduced, they bring with them the logic that properties can be exchanged and sold. On the other hand, if and when this door remains well-guarded - i.e. local populations manage to keep holding their property rights even despite financial pressure -, this can work as a strategy to keep withstand commodification and the degradation it entails for the environment - for those who subscribe to the theory which links commodification to environmental degradation. It is clear that FPIC was intended to tilt the balance of power in the management of the natural resources towards indigenous and local populations, and requiring the indigenous and local populations' consent had been seen as instrumental to this. Furthermore, the FPIC requirement was intended to work together with the many FSC equity principles, ranging from compliance with existing laws to enhancing community relations and well-being. However, as the narrative of participation took center stage in environmental politics, FPIC, too, become more popular and came to be seen as the most important element in the equity assessment of a project.

While participation grew in importance, other equity requirements shrank and became increasingly ancillary. This understanding of the FPIC as the "queen equity procedure" is endorsed by the forestry project promoters and implicit in their behavior. I contend that the very possibility of this behavior is a good indication of a change in the perception of mechanisms for public participation in the forestry domain.

By having the right to withhold consent, a local population can in principle guarantee that the distribution of resources originated by the environmental or development project will in some measure favor them, or in any case not worsen their position. It is usually acknowledged that FPIC might involve deliberation between project proponents and the local population, which can be lengthy and costly, and that a certain amount of capacity-building for local populations is required.

Yet this is not what the FPIC procedure immediately evokes in the mind of project promoters. It is the "consent" part of FPIC which concerns project proponents the most. (FPI)Consent is often the crucial element which separates project proponents from donor money; obtaining it becomes of paramount importance and leads project proponents to less than commendable behavior in their dealings with local populations. There is ample literature on REDD projects which testifies to the tendency of project promoters to provide wrong, incomplete, or cursory information to local populations to obtain their consent.[6] In other words, the fixation by project proponents on consent - whether actually free, prior, and informed, or obtained through deceit - shows the centrality of FPIC as a procedural requirement in order to successfully address the possible equity concerns which might be raised about the environmental project. Once consent - free, prior, and informed or not, and simply presented as FPI - has been obtained, the project, from the equity point of view, has secured authorization. It is participation, if and when participation can be operationalized through a verifiable and clear procedure, which makes the project equitable, whatever the outcome; and the procedure in turn formally guarantees that all equity-relevant issues dear to the participants have been previously addressed. It is in this sense that participation, as operationalized in the forestry sector through the requirement of FPIC, can be considered an instance of pure procedural justice.

[6] For example, the Purus REDD project in Acre (Brasil) had come under attack as the project promoters from the firm Moura & Rosa presented the forest communities with a document to sign as "an insurance that the communities were going to benefit from the project" (Centro de Memòria 2013: 7). Instead, the document was to secure legal rights to the land for the promotors, which document could be used as evidence in court in case the forest communities were to later seek legal recognition of their ownership over the land. A lack of effective participation in the policy deliberations carried out during the process of REDD readiness in Nepal has been proven by the work of Bastakoti and Davidsen (2015): forest communities are sometimes summoned to meetings simply to legitimize the work already done by external consultants, without there being an honest debate on the merits and faults of the projects.

Pure proceduralism is not so pure

The section above highlighted the importance placed on consent as a litmus test for equitability and presented it as a testimony of an ongoing process within a forestry politicy of erosion of alternative equity requirements. The section provided only a concrete example of a more general trend which sees the invocation of public participation as a cover-all blanket to every equity concern. These remarks enable us to see the narrative of public participation from a different angle and open up the space for an analysis of the implications of viewing public participation as an instance of procedural justice. This section will make clear how this criticism can also be directed against pure procedures.

William Nelson (1980), in an article aimed at better cashing out Rawls' treble distinction, casts doubts on the true novelty of the concept of pure procedural justice. More specifically, he does not deny that there are actual cases in which the procedure determines the moral acceptability of the outcome - as in the case of FPIC in forestry projects - and that Rawls' distinction might be a useful heuristic device. Yet he denies that these cases need a new normative apparatus to be explained. In Rawls' example of gambling, the outcome of the gamble will necessarily be just because the gamblers entered the gamble *voluntarily*, committed their own money, they were not coerced, etc.; in other words, they *freely* exercised their *rights* to exchange the certainty of their money for a chance at some, perhaps bigger, return. These italicized words immediately bring us to a very specific set of normative positions: the liberal tradition of justice as entitlements.

If Nelson's reading of Rawls is correct, by assuming and acting in line with the belief that participation and deliberation guarantee that the resulting policies and projects will be equitable, participant individuals and communities are transformed into bearers of entitlements which they can exercise freely. The normative bite of the policy outcomes then falls back on the very existence and the appropriate use - i.e. according to a procedure - of these entitlements. That participating people have entitlements is not bad; of course, the very notion of "entitlements" is associated with Nozick's libertarian theory of justice which, it is fair to say, has more than a few detractors. However, one could espouse a thicker notion of entitlements which can cover primary social goods or Sen's capabilities.

But the problem in constructing participation as a pure procedure lies elsewhere. Participants, by means of their entitlements, are the very sources of normativity. It then becomes of paramount importance to understand who has those entitlements, i.e. to draw the border of participation around those people, and around those only who are affected by a political decision or a project. Here, we encounter the same problems as before: unborn and geographically distant people are systematically underrepresented. And here is also where project promoters in the case of REDD can exploit the widespread belief that participation makes policies or projects equitable: equitable *tout court*, not just *more* equitable than they would otherwise be. And they might do this by

making those who are not entitled to speak on a certain issue participate in lieu of those who would have been entitled to do so.[7]

The more general point to make is that procedures always smuggle in values, participatory ones included: they obviously do it when there is an independent criterion to evaluate what participation should achieve (perfect and imperfect procedural justice); but they also do it when such an independent criterion does not exist and the procedure itself guarantees that the procedural outcome is right. In the latter case, however, those smuggled-in values remain buried under a deep rhetoric of "directly consulting the people." These values are those linked with an idea of justice as entitlements and they are a bedrock which remain non-negotiable and which the various participatory pure procedures simply carry forward unchanged. What remains non-negotiable is the value of agreement in politics and, more fundamental still, that of autonomy and self-determination of the single individuals involved, who are the ultimate source of normative authority. While all of this seems great, mostly because we, in the Western world, recognize ourselves in these liberal democratic values, one cannot but notice that this value-set also creates specific blind spots. Normative concerns to have a voice must speak through one or more participating individuals. In principle nothing precludes that a whole array of usually marginal concerns be taken into consideration during a participatory decision-making process - concerns for the quality of the environment or the distribution of environmental goods (environmental concern), for how policies will affect unborn or geographically distant people (concern for excluded people), and regarding whether policy decisions reflect the best available research on a certain issue (scientific concern). But there is no prior guarantee that they will be taken into consideration either.

What remains non-negotiable is not only autonomy and the attached individual entitlements as the ultimate source of normative authority, but crucially also the liberal ontology of the self. Even the assembly, the paradigmatic public space of the civic environmentalism narrative, is a place in which political preferences and reasons for actions may concern the well-being of society as a whole, but they are still defended in a moderately competitive way through arguments and rhetoric. This understanding of who individuals are and how they behave necessarily prioritizes certain freedoms over others. The fact that human beings are understood as isolated, with their own interests, ideals, ambition, and desires necessarily has an impact on the procedures that are called to make a society out of this individualistic political "primordial soup." The procedures will thus be devised such that likely competing interests can be channeled, mediated,

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[7] A paradigmatic case of this type of intended mismatches happened with the REDD project in Bribri territory (Costa Rica). It is often presented as a project involving the participation of the indigenous population; however, it has been implemented without proper FPIC (Aguilar and Cabrera 2012: 7). Indigenous officers employed by state institutions have been involved in the REDD national strategy of Costa Rica since 2008; however, they sometimes have no relation with the forest communities directly impacted by the specific REDD projects. Project promoters can, and often do, claim that their project involves indigenous people, which is technically true, albeit not in line with the spirit of participation (Kill 2015: 19).

and balanced. The freedoms which will be prioritized are those attached to the individuals; they are expressed in terms of rights, and their protection is entrenched in the very structure of the state. On the other hand, everything which does not directly foster this construction of the liberal individual is not a matter of rights and can be bargained away in the process of decision-making. The environment, then, can be bargained away, unless, of course, it can be shown that interventions upon it have a direct impact on the well-being of the people; in this case the harm principle can be invoked and environmental concerns are "internalized" into the individuals.

In other words, the criticism to the liberal ontology behind the normative presuppositions of the narrative of civic environmentalism goes to the heart of the liberal idea of state neutrality. Liberal procedures reinforce and reward certain liberties (contract, property, etc.), but at the same time exclude other possible ontologies of the self, and the alternative political arrangements which go with them.

What I am offering here is an update of the criticism to liberal institutions made first by the communitarians. All these non-negotiable points in terms of who individuals are and how they behave, cast some shadows behind them. In the '80s it was well understood by the critics of Rawls that what remained the blind spot of liberal institutions was the value of community bonds which provided a sphere of meanings without which it would be impossible - or in any case not desirable - to freely exercise one's individual power of choice in the society and flourish within it. For a while the communitarian criticisms did not really preoccupy liberal scholars because the examples of alternative societies the communitarians put forward seemed to strengthen the liberal positions instead of weakening them: MacIntyre (1981) remained rather vague in his positive contribution and Walzer, famously, used the Indian caste system as a counterexample to liberal societies (Walzer, 1983: 313). However, a "second wave of communitarians" - as Bell (2016) calls it - did a much better job in refocusing the debate by pointing to the social consequences of societies bent on following the liberal premises; according to Etzioni, loneliness, crime, high divorce rate are all likely consequences of increasingly atomistic societies; a trend encouraged by both left and right political positions, albeit in different ways (Etzioni, 2001).

Now the critique can be taken further and employed to say that there are many other aspects which communitarians did not see and are equally excluded by the liberal self. Its blind spot includes not only the role of social communities but also of ecological communities. In particular, one could argue that atomistic societies which are now moved primarily by competition among the individuals constructed and fostered by liberal theories have a built-in tendency to overexploit natural resources. In other words, the normative presuppositions of civic environmentalism make it impossible to see the criticisms coming from radical environmentalism - it remains in the blind spot -, which stresses the role of economic growth, competition, and individualism as some of the true culprits of environmental problems.

The blind spots of radical environmentalism

The blind spots of ecological modernization come from converting equity and ecological concerns into preferences which can then be addressed through the methods of welfare economics. The blind spots of civic environmentalism come from not realizing that the liberal self and liberal procedures upon which its normative presuppositions are built exclude important ecological dimensions which - similarly to communitarian ones - are of paramount importance if we want to make sense of our place in the larger ecological community and to act accordingly.

When it comes to uncovering the normative blind spots of radical environmentalism, the task is somewhat more complicated, compared to the other two previous narratives. In Chapter 4, I reconstructed radical environmentalism as a negative narrative centered on the criticism of commodification and economic growth implicit in more mainstream narratives. This also means, however, that while remaining true to this core message of anti-commodification and anti-economic growth, quite different ideas of proper social arrangements - i.e. how a society in its basic structures is supposed to look like - can be put forward: ecological feminism, eco-socialism, bioregionalism, deep ecology, just to list a few, all have different visions of how a society should be structured. Albeit in these many different guises, what brings radical environmentalists together is the attempt to reverse the logic of ecological modernization and civic environmentalism. Despite their differences, ecological modernization and civic environmentalism share a common understanding of the relation between society and nature in their conceptualization of justice and efficiency. We have seen this clearly above in the continuities between ecological modernization and civic environmentalism - how both assume scarcity and go in the direction of employing economic growth to settle distributive issues - and in Chapter 5 where the two radical focuses - anti-commodification and degrowth - can be cashed out both in terms of a criticism against welfare economics and the normative presuppositions informing ecological modernization and against liberal theories of distributive justice and the normative presuppositions governing civic environmentalism. For the radical environmentalists, the concern with economic growth and an increase in and distribution of well-being should be subsumed under, and internalized into, the ecology, not the other way around. As put by Andrew Dobson, the guiding idea of these radical positions is that "the natural world should determine the political, economic, and social life of communities" (Dobson 2012: 100). By using Marxian categories, one could say that nature's workings are the base of our societies, whereas political, economic and social arrangements are its superstructure.

In this section, I have singled out two possible methods which radical environmentalist scholars might wish to employ to ensure the primacy of environmental concerns over economic and social ones. The first is to employ environment-based "currencies" to evaluate policies and projects, instead of employing the logic of preference-satisfaction, i.e. a human-based currency. Various forms of energy accounting methods do precisely that. Energy accounting turns on the idea of "counting

in nature": production and consumption patterns are then studied in terms, for example, of their ecological footprint, i.e. the appropriation of land area in relation to the provision of consumer goods as a measure of environmental impact (Wackernagel and Rees, 1996). Another counting method is the material flow accounting (MFA), which is used to quantify and study the flows of materials and substances across different industrial sectors and ecosystems (Fischer-Kowalski *et al*., 2011). Whereas these energy accounting methods have been around for a while, they do not seem to have dramatically advanced the radical cause towards less commodification and less growth. This is because the energy accounting methods are mostly used either as additional checks, once the decisions are already taken, or for advocacy purposes. In the first case, additional energy accounting safeguards are used to identify any outstanding environmental concern to be internalized and move on with the project: these accounting methods which count *in* nature are then instrumental to count nature *into something else,* and hence to be subsumed under the logic proper of ecological modernization. In the second case, energy accounting methods are used to advance in the public sphere, during debates and negotiations, the specific cause of those negatively impacted by environmental problems. Studies on the ecological footprint of a wide array of consumer products show how unequal the environmental impacts of different populations are the extent to which global consumption exceeds the bio-capacity of the planet - according to the WWF, we are consuming 1.6 planets (WWF, 2016). Whereas radical environmentalists would demand that a decision first be taken on the basis that a policy or project respects the environment - low or zero environmental impact -, and only subsequently on the basis that it meets the demands of the consumers or the electorate, decision-makers usually do precisely the opposite: they justify their choices by invoking cost-efficiency rationales or the demands of the electorate - both firmly grounded on the sanctity of individual autonomy -, and if there are outstanding environmental concerns they work a way out to meet them, too.

The second method advocated by some radical scholars is that of scaling back the impact of human beings on the environment by redrawing completely the boundaries of our current societies. This vision is shared by a number of different proposals: Schumacher's "small is beautiful" communities (Schumacher, 1974), Latouche's degrown societies (Latouche, 2009), transition town movements, and bioregionalism (Sale, 1985). All these proposals put forward a geographical solution to the problem of environmental degradation: human beings, by living beyond the boundaries - both conceptual and physical - dictated by nature, are wreaking havoc on earth and its fragile systems and equilibria. The solution is to put human beings back into their place, and hence within nature. Among these proposals, the most radical is bioregionalism. A bioregion is, according to the definition provided by Sale, "a part of the earth's surface whose rough boundaries are determined by natural rather than human dictates, distinguishable from other areas by attributes of flora, fauna, water, climate, soils and land-forms, and the human settlements and cultures those attributes have given rise to" (Sale, 1985: 168). Living in a bioregion and in conformity with bioregionalist principles would entail making use of the resources which are found within the

bioregion - global trading would not be permitted - and living within a relatively small community of people. The small community is also the locus of decision-making, which would probably be constructed along liberal democratic lines. Yet this would not prove to be a disruptive element, as the individuals are already well aware of what bioregionalism dictates to them, hence politics, too, would be limited within ecological boundaries. Such a social arrangement is clearly too distant from our current social arrangements structured around the ideas originated during the French Revolution and its immediate aftermath; nothing short of a revolution would be necessary to get these ideas out of the papers and books and into politics. Yet this bioregional vision offers a powerful regulative idea of what radicals should aspire to: living within the bounds of nature, not outside of them.

Both the methods surveyed above - counting in nature and living within ecological boundaries - implicitly presuppose some very specific ideas about nature. In the first case, when energy accounting is used in a prescriptive way - for example to halt projects in which the dispersion of energy does not justify its employment -, it presupposes that the movement from low entropy to high entropy should be minimized, that low entropy is good and that such a state should be safeguarded as much as possible. In the second case, the geographical solution assumes that there are such things as bioregions and that an optimal size for organizing a society can be established. Radical environmentalists criticize environmental economics for establishing and using theoretical constructs such as "tons of CO_2" and for dividing nature into clearly defined ecosystem services which can be bought and sold. They caution environmental economists about the perils of considering nature as an entity with defined boundaries, yet ecologists and radical scholars do not seem to be engaged in a very different endeavor when they divide the world into bioregions, distinguish high and low entropy by introducing threshold levels, and prescribe the size of a society, such that human beings could live in harmony with nature. Surely, they might claim that their division is based on firmer ground as they are dictated by science and scientific ecology, instead of on the convenience of having tradable entities. But what they are essentially doing is to claim that there actually are some authorities who can correctly establish certain natural boundaries. These authorities are ecology and the natural sciences but they, too, use categorizations and pre-define problems in a way which is potentially controversial. Words, metaphors, and concept call for appropriate responses; and the categories and principles of ecology which make use of such words, metaphors, and concepts end up concealing implicit prescriptions. These are then received uncritically by those radical scholars who wish to put forward normative positions - such as those implicit in energy accounting or bioregionalism -, which follow the categories and principles of ecology and the natural sciences. The idea that something is in equilibrium, or would be in equilibrium if external forces were not present, implicitly demands an appropriate response, i.e. not perturbing the equilibrium state or removing the external forces that are currently perturbing it. The idea that imaginary lines along which natural phenomena can be divided exist, and that these lines are called "boundaries," implicitly demands that we treat these lines in the same way as we do geographical boundaries.

The most enduring and comprehensive categorization across all the narratives and their respective normative presuppositions surveyed so far - hence radical environmentalism included - is the dichotomy between society on the one hand and nature on the other. The narratives of ecological modernization and civic environmentalism perpetuate this categorization by depicting human interventions upon the environment as external forces able to either technically reestablish some lost environmental equilibrium worth preserving or, more often, by defining away environmental problems. Radical environmentalism tries to subvert the dichotomy by claiming that man and nature should be part of a harmonious *unicum*. The two radical methods surveyed above - counting in nature and living within ecological boundaries - can be understood precisely as instruments in order to realize this ideal. However, by leaving intact the categories of man/society, on the one hand, and environment/nature, on the other, radical environmentalism, too, perpetuates the dichotomy, albeit by different means. This is most evident when ecological explanations are employed to bear on human matters. If social arrangements are a superstructure on top of the ecological base, then it follows that the main ecological categories should suffice to explain social phenomena.

However, ecology is less successful in explaining the movement of the human population than those of fish or birds populations (Martínez-Alier, 1990). Sometimes, the category of "adaptation" is employed to explain the behavior of certain human populations, as in the case of the Peruvian shepherds in the Andes, who sustain themselves with very low energy consumption. Martínez-Alier notes, however, how "Peruvian peasants have attempted time and again, at least from the Spanish conquest onwards, *not to adapt* to the destiny that the colonial power, the authorities from Lima, the local landowners, and the world economic and political system, reserved for them" (Martínez-Alier, 1990: 11). In other words, there are occasions in which an ecological explanation of some quintessentially human phenomenon risks giving up a more fine-grained analysis of what is going on in favor of some ideologically-driven account of biological evolution, i.e. motivated by the belief that human matters *should* be explained ecologically.

From the point of view of those who remain skeptical about the possibility of grounding a normative theory upon the descriptive statements of ecology, it might thus seem as a bad deal to give up what seem to be more normatively neutral approaches to environmental politics - such as those put forward by ecological modernization and civic environmentalism - in favor of a substantive and ecologically-inspired one.

As we have seen throughout this book, and on closer inspection, this is not how the deal should be presented at all: both the ecological modernization narrative and civic environmentalism narratives are far from being normatively neutral. These narratives smuggle in values which resonate with the majority of the people, which have been around at least since the French Revolution and hence which most persons were born into; they are neutral not because they are not substantive but because it is the kind of substance which we are used to. On the other hand, radical environmentalism tries to bring in prescriptions which are felt by many as an impediment to those same liberties

we currently take for granted. There is a specific set of well-known examples used by those who push this kind of argument against the radical positions: radical environmentalism is - according to those critics - deeply misanthropic as, if followed through to its theoretical consequences, it would entail population control, curtailing of dietary choices, restrictions on the ability to freely move by car and plane, trading limitations, etc. (Westra and Lawson, 2001). At bottom, this can be portrayed as a classic old vs. new values debate: the ideas of the Enlightenment and of French Revolution before they imposed themselves faced an uphill battle that lasted more than a century; the conservatives of the time contended that while the promise of the new values - liberty and equality - might seem alluring, the price to pay in terms of insecurity and instability due to the loss of the moral compass of the *Ancien Régime* would have been too high. And yet those new disrupting values are by and large the same which are now considered so commonplace - at least in the Western world, it must be remarked - that Rawls built his political liberalism upon them, i.e. a neutral meeting place where those who hold competing substantive theories of the good can negotiate among themselves. Of course, it can be contended that Rawls has not really been successful in building such a neutral space, that his theory can be accused of ethnocentrism and it is all but neutral. But the fact that a towering figure such as Rawls considered them as suitable candidates to build a mildly multicultural theory of legitimate power and distributive justice upon them, is a testimony of how commonplace these ideas have become since terror was first needed to defend them.

The major blind spot of the normative positions which can be grouped under the label of radical environmentalism does not come from wanting to put forward the theoretical building blocks of a substantive environmental theory of justice and, in so doing, from translating and subsuming under an environmental core other normative concerns, but in doing so without having previously rinsed of its implicit bias and normative presuppositions the conceptual apparatus necessary to subtend such a theoretical endeavor. In other words, radical propositions are constrained in either of two different ways. Either their propositions employ an anthropological model which keeps the liberal traits, in which case they are then ill-fitted to the demands a substantive theory makes on human beings as characterized in a quintessentially liberal way. Or radical positions dump the liberal anthropological model (as in the case of Andean peasants who supposedly should have adapted to the external energy conditions), yet they risk alienating all those people who are not yet willing to leave behind the typically modern construction of what counts as a human being.

It makes sense to speak about blind spots when referencing radical environmentalism scholarship because it remains locked up in this dynamics in which it is thus far incapable of re-conceptualizing the relation between society and nature in a way that can defuse this conundrum. This entails that radical environmentalism wants to have its cake and eat it, too: either critique ecological modernization and civic environmentalism, while holding on to the concept of social justice predicated of those positions, or introduce a model of environmental justice that cannot be reconciled with the key tenets of what counts as justice for moderns. In this sense, a blind spot which

covers what I have previously referred to as the liberal self is created because there is an understanding that the underlying anthropological model of the more mainstream approaches is something worth keeping, and its traits are still felt as worth catering to; however it is put under strain and overshadowed by the substantive theory of environmental justice as envisioned by radical environmentalism scholars. Or there is a blind spot to the values intrinsic to liberal politics which makes radical environmentalism unpalatable to many - if not most - addressees of the radical environmentalist narrative.

CONCLUSION

"There is no consistent solution to the problems we are discussing that does not involve biting at least one bullet," wrote Singer (2015) in the afterword to *The Ethics of Killing Animals* (Visak and Garner, 2015). He is referring to the moral dilemmas involved in killing animals for our consumption, but the quote can be perfectly applied to a wider array of environmental issues, including the debate presented in this book on competing environmental narratives and their normative presuppositions over the merits and demerits of market-based mechanisms for environmental protection. In other words, no individual narrative - and its related normative presuppositions - is able to capture the complexity of environmental politics with its competing demands and different concerns in such a way as not to create at least some discontent. The fact that each narrative has its blind spots - areas in which the concerns of competing narratives are willingly or unwillingly overlooked - makes it unlikely that the debate about the appropriate normative principles informing environmental policy will disappear anytime soon. The policy implications of this irreducible complexity can be revealed in the actual elements which characterize a number of different environmental policies in the recent past, as well as in the debates surrounding these policies, which contributed to their approval and implementation or, alternatively, to their eventual demise. In other words, these competing narratives live side-by-side and, when environmental policies are first put forward and then debated, each tries to pull in its separate direction. This plurality is reflected both in the debates about these policies, as well as in the policies themselves.

I kicked off this book with the policy initiative of Ecuador. A decade ago, Ecuador submitted a conditional policy proposal to the international community: monetary compensation in exchange for forfeiting the opportunity costs of alternative, more resource-intensive, development policies; in turn, this would have guaranteed environmental protection and the continual provision of various valuable ecosystem services. In this sense, the structure of this exchange is quite similar to what have come to be known as REDD(+) mechanisms, and to another Guyana proposal, which was much less successful. I started this book with these cases because they provided me with a precise entry point into a debate - on the merits and demerits of a market-based mechanism for environmental protection - which is polarized and, most importantly, complex. In particular, the accusations of blackmail which at various points in the past decade have been directed to these conditional policies allowed me to focus on a specific aspect of these policies: their normativity. Of course, normativity is said in many ways and a way had to be devised to limit, and at the same time structure, the

field of inquiry: looking at environmental narratives did precisely that. I have called this approach *meso-level* because it ideally inhabits a space which is found below macro-global approaches to environmental policy analysis, yet does not rely on a case-by-case analysis of policies. By a macro approach I meant the tendency to employ a macro lens - a single overarching normative framework - when considering a given problem, and then finding out whether the case at hand can be justified in light of this normative framework. By global I meant the tendency to analyze environmental policies by resorting to global justice approaches which evaluate a certain policy on the basis of rights and duties which distant states and people owe to each other. The quote with which I have opened Chapter 3 represents a good example of both.

Narratives are stories already out there in the words of politicians, journalists, negotiators, academics, about what is appropriate, acceptable, practicable or not, in the domain of environmental politics. As such, they are also vehicles of normative ideas which shape our perception of environmental politics.

By looking at the normative presuppositions governing the environmental narratives in terms of the popular dichotomy efficiency vs. justice, and by analyzing the relationship among the narratives and their respective normative presuppositions in terms of clashes, continuities, and blind spots, we get a better sense of where, precisely, the complexities lie, and why the debate over the merits and faults of market-based environmental policies is not likely to see a reduction in its polarization any time soon.

Concerning the first matrix - *efficiency vs. justice* -, ecological modernization justifies the adoption of market-based policies to address environmental problems on two independents grounds: welfare economics and libertarian justice. The former justifies market-based policies on the premise that they produce the greatest amount of well-being for a given population; the latter, on the premise that they allow human beings to freely go about with their lives with minimum interference from state or supranational authorities. Most of the time these two independent grounds of justification reinforce each other: market-based mechanisms efficiently satisfy preferences (the currency of welfare economics) *and* safeguard individual freedoms. More rarely, however, libertarianism could work as an internal limit to policies built solely on welfare economics grounds. This happens when environmental problems might infringe or impact negatively on the rights of individual people. We have also seen, however, that while libertarian justice might work as an internal constraint, this almost never happens because of several reasons: first, it is not easy to specify which rights have been infringed, and complex policies often impact people on both sides of an issue - people whose rights are negatively impacted if a policy is implemented and those whose rights are negatively impacted if a policy is not implemented. Second, there are many brands of libertarianism, and these are invoked strategically by those who stand to gain from the *status quo*. Finally, as we have seen in Chapter 5, issues of justice are embedded in the welfare economics framework through the internalization of a wide array of normative concerns into economic preferences. In light of these considerations, it is possible to summarize the narrative of ecological modernization as the attempt to assimilate justice to efficiency in environmental policy.

Civic environmentalism scholars maintain that market mechanisms might well provide environmental protection, but it is unlikely that they also provide equitable environmental protection. The tendency of markets to produce inequitable outcomes needs to be corrected by resorting to mechanisms of public participation. We have seen that the narrative of participation is built on rejecting the assumption that the normative presuppositions of ecological modernization are relevant to equitably decide on environmental issues (distributional concern) and the claim that the inputs of economists in policy making, and technical personnel in general, are truly value-free (legitimacy concern). There are two different models of democracy, each relying on different normative grounds, upon which the narrative of civic environmentalism can be justified. The first one sees the inputs of participating people in environmental politics as valuable because the information that they provide to policy makers through the voting process is helpful in designing more equitable policies. This model of democratic aggregation is anchored in a Rational Choice Theory model of individual behavior and remains prey of the specific epistemic communities which have privileged access to policy makers and which can weigh in on how political preferences are aggregated. This model of democracy, furthermore, hopes to solve the distributional concern without also tackling the legitimacy concern. The aggregative model of democracy thus only provides limited access to participating people. A more ambitious approach to public participation is represented by the participatory model of democracy, which is integrative in its aspirations. This model is grounded on Rawlsian political liberalism and aims to tackle the distributional concern by first tackling the legitimacy concern through procedural justice. In other words, a fair procedure, centered on creating a space for the exercise of public reason, is needed to collectively clarify what counts as an "equitable" environmental policy, given that it is not possible to rely on the substantive value commitments of particular epistemic communities. In light of these considerations, it is possible to summarize the narrative of civic environmentalism as the attempt to subsume efficiency under a broader conception of political justice.

Radical environmentalism scholars doubt that market-based environmental protection can provide a lasting solution to environmental problems. Quite the opposite, they are - according to them - their true culprit. They arrive at this conclusion by offering a criticism of both the process of commodification of natural resources and the role of economic growth within our contemporary societies. In particular, they criticize welfare economics and liberal theories of distributive justice by showing how the process of commodification of nature, which is instrumental to both, is both technically difficult and increases the inequality in the access to, and collective enjoyment of, those resources. Furthermore, they criticize welfare economics and liberal theories of distributive justice by arguing that the need for continuous economic growth, which is necessary to both, is responsible for the degradation of the environment. They argue for this by resorting to a barrage of literature in ecological economics (Georgescu-Roegen, 1971; Jackson, 2009, Meadows *et al*., 1972) and by criticizing the traits of competition and egoism within economics' idealizing assumptions. In light of these considerations, it is possible to summarize the narrative of radical environmentalism as the attempt to

reject both the paradigms of efficiency and political justice in favor of a largely non-anthropocentric conception of justice.

	Ecological modernization	**Civic environmentalism**	**Radical environmentalism**
Efficiency	Employment of markets and market-based mechanisms premised on **welfare economics**.	**Democratic efficiency** premised on the **aggregative model of democracy** and Rational Choice Theory.	**Rejection of efficiency** as a normative concern. Rejection premised on a criticism of the commodification of nature and economic growth which targets specifically welfare economics.
Justice	Employment of markets and market-based mechanisms premised on **libertarian justice**.	**Democratic justice** premised on the **participatory and integrative model of democracy**.	**Rejection of social justice** as a normative concern. Rejection premised on a criticism of the commodification of nature and economic growth which targets specifically liberal theories of distributive justice.

Table 6.1 - The first matrix: *efficiency vs. justice*.

The second matrix - *clashes, continuities, and blind spots* -, builds upon the work done in Chapters 2 to 4 and represents an in-depth analysis of the normative presuppositions unveiled in the first matrix. Starting from clashes, the different environmental narratives are compared by means of four different categories: (i) relevant information, (ii) individual agency, (iii) locus of decision-making, and (iv) governance model. Ecological modernization represents a technocratic approach to environmental problem-solving which stresses the role of consumers, and economic actors in general, in providing environmental protection. It is believed that technocratically and externally determined policies and incentives can work towards aligning the economic preferences of economic actors with important societal goals. Civic environmentalism represents a participatory approach to environmental problem-solving which stresses the role of the citizens in providing equitable environmental protection. Participating people collectively decide under fair and open conditions of deliberation the principles by which environmental policy should be informed. Radical environmentalism represents an anti-*status quo* force made up by like-minded activists

who contest that efficiency and social justice are normative concerns to be taken into consideration when dealing with environmental issues.

These different narratives are, however, linked to one another by a deep set of continuities: the different proposals are built upon each other's perceived shortcomings and depart from similar concerns. The three narratives depart from scarcity as a central theme to be addressed by their proposals. Scarcity is framed by environmental economists working within the ecological modernization framework both as a theoretical assumption from which economics draws its *raison d'être* and as a challenge to be met by ever more refined allocations. Scarcity is framed by civic environmentalist scholars as a prerequisite of justice - half way between abundance and extreme indigence -; as a theoretical assumption which impedes liberal distributive theories of justice from turning into perfectionist theories of the good; and as justification for a redistributive system which, within the limits of a politically agreed fair system of distribution, pursues economic growth. Scarcity is framed by radical environmentalist scholars as a fact as well as the all-too-real consequence of the policy solutions proposed thus far by the environmental scholars working within the frameworks of competing narratives. Furthermore, by assuming scarcity and by employing a liberal normative framework, both ecological modernization and civic environmentalism resort to economic growth in order to settle problems of efficient allocation and fair redistribution of available resources.

The three narratives, as a consequence of the fact that, while departing from common positions, pursue different theoretical paths, each have a peculiar blind spot. Ecological modernization translates every normative concern into preferences to be maximized in the most cost-efficient way, premised on the assumption that this is the most "natural" way to analyze and solve social problems. Civic environmentalism does not realize that the liberal self and liberal procedures upon which its normative presuppositions are built implicitly stress the role of economic growth, competition, and individualism, and excludes important ecological dimensions. Radical environmentalism implicitly denies the modern conception of human agency and freedom, yet it is not able to convincingly substitute it.

But what about those cases with which I have opened the book? They provided an example of the debates surrounding market-based mechanisms for environmental protection, but now that we have a better understanding of the various normative positions informing these types of debates, can we say something more about those too? I believe so, and not without a certain degree of hindsight, we can extrapolate some general traits which summarize the policy implications of the clashes, continuities, and blind spots which each narrative and its correlative normative presuppositions carry with them. I opened the book with the case of Ecuador, and I will end it with it. Not just because it gives the sense of a reassuring "coming full circle," but also because the debate which accompanied the Yasuní-ITT Initiative as a market-based policy, its merits, and its shortcomings, has been, from the very beginning, more complex, more cacophonous, and more publicly available in the general media. Of course, the vicissitudes of the Yasuní-ITT Initiative will tell a story which is very specific to

	Ecological modernization	Civic environmentalism	Radical environmentalism
Clashes *(i)*	Economic preferences	Political preferences Reasons for action	Not predetermined
(ii)	Consumers	Citizens	Activists
(iii)	Market	Assembly	Retreat
(iv)	Technocratic	Participatory	Emancipatory, anti *status quo*
Continuities			
(i)	Scarcity	Scarcity	Scarcity
(ii)	Economic growth	Economic growth	/
Blind spots	Translation of every normative concerns into preferences to be maximized.	The liberal self and liberal procedures upon which its normative presuppositions are built exclude important ecological dimensions.	Denies the modern conception of human agency and freedom and cannot be reconciled with what counts as justice for moderns.

Table 6.2 - The second matrix: *clashes, continuities, and blind spots*.

Ecuador and a handful of other Latin American countries; yet, when seen through the lenses of the environmental narratives and their normative presuppositions explored in the previous chapters, a few general lessons about the policy implications of competing environmental narratives can nonetheless be extrapolated.

Each environmental narrative analyzed in the previous chapters would frame and respond to Correa's Yasuní-ITT Initiative differently. Ecological modernization is perfectly in line with Ecuador's conditional proposal: by leaving the oil in the soil and receiving compensation for it, both environmental protection and provision of social services are guaranteed. Correa's proposal wanted to link compensation to the carbon market in a way that the amount of money spent on leaving oil under the Yasuní National Park could earn a credit to emit CO_2 somewhere else in the world. This is consistent with the ecological modernization logic that CO_2 reductions need to be pursued where it is most efficient to do so. After the Initiative failed, the second option of Correa's conditional proposal - drilling for oil - can still be understood within a larger ecological modernization framework: valuable resources are extracted in a way which, however, allegedly minimizes its social costs. Social and environmental impact assessments are conducted, and only those courses of action which minimize these impacts are pursued, providing compensation for any outstanding social costs.

The Yasuní-ITT Initiative had been the result of civic society engagement around the issues of environmental protection and fair redistribution of the resources. In

particular, participation around the Yasuní Initiative benefited from a general climate of public engagement which culminated with the drafting of the new Constitution of Ecuador in 2008. Notably, the 2008 Constitution is the first of its kind to grant rights to ecosystems and nature in general. The Yasuní could have convincingly been branded as the first actual government-sponsored plan emerging from this collective redefinition of what counts as an equitable and sustainable policy. However, while the Initiative initially represented and reflected the engagement of large part of the population on the issue of environmental protection and fair redistribution of the resources, once the government was forced to follow through on its promise that, lacking sufficient foreign contributions, oil needed to be extracted, public support for the alternative course of action dwindled. This now reflected more traditional forms of resource extraction: oil is drilled following so-called best practices which minimize impacts - e.g. the inland-offshore model -, compensation and work opportunities are provided for the people directly affected by the policy, public oversight and monitoring is limited. While the proposal of the Initiative was in line with a model of development which could be consistent with civic environmentalism, this cannot be said of the way in which the government has handled the dismissal of the Initiative. The civil society asked again to be involved and demanded a referendum over the approval of the new course of action, but this has not been granted.

From the point of view of radical environmentalism, the Yasuní-ITT Initiative has been a deeply problematic policy proposal. While admirable in its intention to keep the oil underground, the Initiative had been pursued with the wrong set of policy instruments. Even before Correa's government officially axed the plan to save the Yasuní Nation Park over the ITT oil blocks, in order to pursue a more fairly traditional extractive development path, the Yasuní-ITT Initiative had several features which would put it in direct tensions with radical environmentalism positions: first, the intrinsic commodification of nature which comes when a price is attached to it; second, the fact that the Initiative had been designed in order to function as an offset scheme which would enable pollution somewhere else in the world, such that it remained anchored to a broader neoliberal scheme of environmental protection; third, it remained firmly anchored to a pro-growth ideology, in particular Correa's development agenda.

With a certain degree of simplification - which is unavoidable when dealing with complex issues at an abstract level of analysis -, it is possible to say that, from an ecological modernization point of view, both the conditional proposal and how it has been followed through, once contributions did not reach the necessary amount to pursue the Initiative, are justified. From the point of view of civic environmentalism, the conditional proposal, which was put forward by the civil society and then taken up by the government, was justified; but this cannot be said of the drilling of oil afterward, which had been carried out notwithstanding the protests of a large section of the population and in a non-inclusive manner. From the point of view of radical environmentalism, both the conditional proposal and the ensuing drilling are not justified.

CONCLUSION

The analysis carried out in the previous chapters show that the three narratives represent three possible coherent stances in terms of environmental protection approaches. As shown here, however, these stances are also incompatible among each other, and, similarly to a Condorcet paradox, there is no set of arguments on which all three can find common ground to justify the policy.

The macro approaches - which these narratives well represent when considered in isolation - are ultimately reductive and fail to make sense of what is at stake in specific environmental conflicts. This is the first thesis I sought to defend throughout this book. The framework of ecological modernization justifies developmental policies on the basis that significant benefits for the society - calculated in terms of economic preferences and well-being - can be expected and that appropriate compensation to those negatively impacted would be provided. This overlooks the simple fact that monetary or even in kind compensations are, to many people, not as valuable as a publicly debated and collectively agreed course of action reflecting the values of society as a whole. Sometimes compensation is even perceived as an affront. This sentiment is well-captured by the village leader of Puerto Miranda - a small village on the Rio Napo in the Yasuní National Park - who said "What am I gonna do if they give me a million dollars and then erase the whole forest? What's that worth? I prefer to keep the forest" (France 24 English: 2017). In the context of ecological modernization, this incapacity to grapple with a plurality of values, translating instead every normative concern into the currency of economic preferences, is, for example, also documented in another case study, geographically closer to us. Frey and Felix Oberholzer-Gee (1997) observed that the citizens of a small town in Switzerland were less likely to accept that their community house a facility to store nuclear waste if the proposal by the government involved monetary compensation; on the other hand, they were willing to accept the waste in case no monetary compensation was involved. This is because - argued Michael Sandel - "willingness to accept the nuclear waste site reflected public spirit - a recognition that the country as a whole depended on nuclear energy and that the nuclear waste had to be stored somewhere" (Sandel, 2012: 115).

Civic environmentalism scholars, while more attentive to the importance of these social aspects of policy making, are blind to the fact that open and fair procedures are not value-free: they are built around the liberal ontology of the self which implicitly constructs the environment as something which is up for negotiation. This narrative remains linked to the protection of environmental *human* rights, as opposed to the rights of nature, as an approach to address environmental problems. The logic behind the Initiative, and of countless other compensatory schemes, still reflects an anthropocentric understanding of nature as a resource: the policy is justified inasmuch as the potential loss of revenues is compensated somehow and the benefit fairly redistributed. Environmental protection is but one component of human well-being which needs to be taken into consideration when accessing possible developmental policies, i.e. it does not have an independent normative force. Albeit couched in a language - that of "rights of nature" - which might confuse many into think that nature does have this independent normative force, this framework has been upheld by Correa himself to justify the

exploitation of oil underneath the Yasuní National Park. He said: "The biggest mistake is to subordinate human rights to *ostensible* natural rights" (President Correa quoted in Becker, 2013, emphasis is mine).

A radical environmentalist perspective is incapable of explaining how the kind of rigorous environmental protection they envisage can be reconciled with the imperative of delivering human services and social welfare for the population - this is especially the case if we consider states that have no other stream of income than their natural resources. While they might point to the indigenous notion of *Kawsay sumak* included in the 2008 Ecuadorean Constitution (it means "good living," close to the notion of living "a good life," rather than "the good life") as a possible way to concretely operationalize how human beings and nature can live alongside each other in a way that ultimately promotes the dissolution of the human/nature dichotomy, it is difficult to imagine that the allegedly naturally sustainable indigenous model might become a lifestyle that everybody living in modern liberal states could, much less would want to, freely accept.

There is no silver bullet solution to this kind of environmental conflicts, and the analytical approach employed here has shown us why. In particular, understanding conflicts in terms of popular environmental narratives and their normative presuppositions enables us to create a map of the complexity of a certain issue. By knowing where tensions are and where they come from, it is possible to have a synoptic view of the positions in a debate. Through the lens of the meso-level approach, the various positions can thus implicitly "talk" to each other. This is the second thesis I sought to defend throughout this book.

Finally, there is a built-in adaptability within the meso-level approach. While the three narratives employed throughout the book have been chosen on the basis that they reflect the most common positions found in environmental debates concerning the appropriate approach to environmental protection, environmental narratives come and go. In the future, other positions in environmental debates might become popular which cannot be traced back to any of the three narratives analyzed here. Different narratives can be easily accommodated within the meso-level approach and analyzed by means of the two matrices model. Similarly, while efficiency and justice are the two normative concerns which have shaped and defined environmental policy debates in the last half century, and although their influence does not seem to be waning any time soon, they are not the only possible normative coordinates against which environmental policies can be judged. Need and security - in a world increasingly defined by broader environmental challenges such as military conflicts over natural resources or climate change-induced migration - might become more relevant normative coordinates for the evaluation of environmental policies. The meso-level approach can accommodate this eventuality, too.

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